Product Catalog

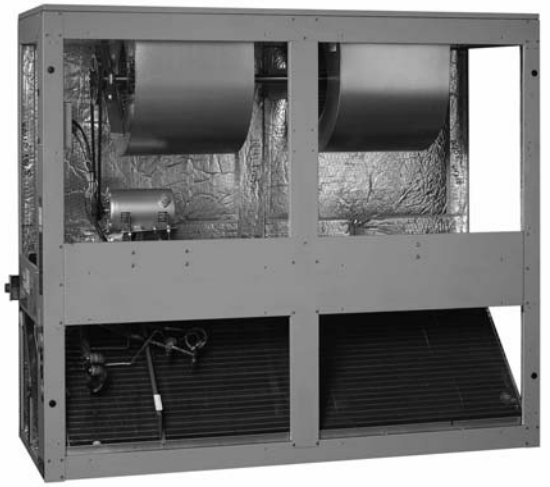
Split System Air Conditioners
Odyssey™

Heat Pump Condenser — 6 to 20 Tons — 50 Hz
Air Handler — 4.6 to 16.7 Tons — 50 Hz

May 2014

SSP-PRC024E-EN

Introduction



Trane's reputation for providing quality comfort solutions continues with the development of the next generation Light Commercial Odyssey Split Systems.

With wide network availability, flexible applications, installation ease, built-in reliability and easy servicing, Odyssey will meet any number of customer applications. Add to that Trane's outstanding customer service and you have the formula to make Odyssey the clear choice for continued customer satisfaction.

Wide network availability

A broad distribution network provides owners, maintenance personnel, contractors, etc., the means to get their hands on equipment when they need it. Whether it's an emergency replacement or a new construction project in its infancy stages, Odyssey products meet an array of needs at the right time and right price.

Flexible applications

No matter what the application, Odyssey provides the solution. A broad array of models and tonnages are available with single or dual compressors, single or dual circuits and numerous accessories. Condensing units can be installed on the ground or on a rooftop along with extended piping runs, while air handlers can be free discharge on the ground or horizontally suspended with long duct runs from a ceiling. Should application challenges arise, Odyssey delivers.

Easy to install

Small footprints and low weights combined with factory installed components like TXVs, filter driers, etc., reduce installation time and cost. Colored and numbered wiring and factory tested units make Odyssey the right choice.

Built-in reliability

Keeping in mind that productivity only occurs when equipment is operational,Trane has taken the steps to ensure that Odyssey is up and running. Early indicators such as phase/reversal monitors and loss of charge protection provide diagnostics which prevent failure and provide years of worry-free service and operation.

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Easy to service

When preventive maintenance or service is required, technicians will find efficient access to both air handlers and condensers. Panels provide complete, easy access coupled with standardized cabinets in which all components are located in proximity. Odyssey's improved design results in minimum service times and costs.

With these capabilities, Odyssey provides customers high efficiency and superior performance for the best all-around value in the market today.

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Revision History

- A compressor warranty is now available on 20 ton units, contact Product Support for additional information.
- Minor running edits are included.

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Features

Split System Overview

Unlike typical split systems on the market, Odyssey offers easy servicing, built-in reliability, ease of installation and outstanding customer service. And because today's owners are very cost-conscious when it comes to service and maintenance, the Odyssey Split System was designed with direct input from service contractors. This valuable information helped to design a product that would get the service person off the job quicker and save the owner money.

Flexible Applications

Odyssey offers outstanding standard features enhanced by a variety of factory and field installed options, multiple control options, rigorously tested proven designs and superior product and technical support. Because of this, Odyssey offers ultimate flexibility. Units are built to order in our standard "shortest in the industry" ship cycle time. Odyssey is available with single, dual and manifolded compressor options. Single compressor outdoor units feature a single refrigeration circuitry, lowering job installation costs by requiring only one set of refrigerant lines.

Equally important, Odyssey offers single refrigerant circuit/capacity unloading models. The unloading units feature dual manifolded scroll compressors with two stages of capacity modulation and a single refrigeration circuit. Dual compressor/dual circuit models give true stand-by protection - if one compressor fails, the second will automatically start-up. Also, the first compressor can be serviced without shutting down the unit since the refrigerant circuits are independent. Dual compressor models also save on energy costs. During light load conditions, only one compressor will operate to save energy.

Unmatched Product Support

One of our finest assets, Trane Sales Representatives are a support group that can assist you with:

- Product
- Application
- Service
- Training
- Special Applications
- Specifications
- Computer Programs and much more

Rigorous Testing

Our units are rigorously rain tested to ensure water integrity. Actual shipping tests are performed to determine packaging requirements. Units are test shipped around the country to determine the best packaging. Factory shake and drop tests are used as part of the package design process to help assure that the unit arrives at the job site in top condition. Rigging tests include lifting a unit into the air and letting it drop one foot, assuring that the lifting lugs and rails hold up under stress. A 100% coil leak test is performed at the factory. The condenser coils are leak tested at 660 psig and evaporators to 450 psig. All parts are inspected at the point of final assembly. Sub-standard parts are identified and rejected immediately. Every unit receives a 100% unit run test before leaving the production line to ensure it lives up to rigorous Trane requirements.

Standard and Optional Features

Figure 1. Compressors

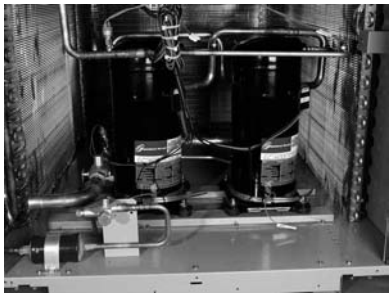


Figure 2. Belt drive motor

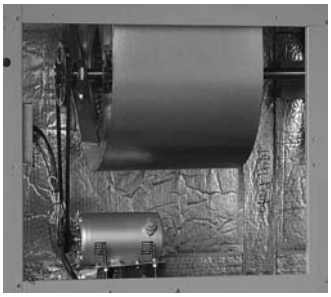
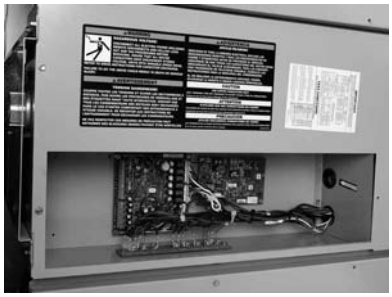


Figure 3. Easy access to terminal board



Airflow Distribution — Odyssey can replace an older machine with old ductwork and, in many cases, improve the comfort through better air distribution.

Anti-Short Cycle Timer — Provides a 3 minute minimum "ON" time and 3 minute "OFF" time for compressors to enhance compressor reliability by assuring proper oil return.

Belt Drive Motors — For additional static requirements, Odyssey Split Systems offer standard belt drive motors to meet and exceed a wide range of airflow needs.

Black Epoxy Pre-Coated Condenser Coils — The pre-coated coils are an economical option for protection in mildly corrosive environments.

Colored And Numbered Wiring — Save time and money tracing wires and diagnosing the unit.

Compressors — Odyssey Split Systems contain the best compressor technology available to achieve the highest possible performance. Dual compressors perform very well under part load cooling conditions and system back- up applications. Dual compressors are available on 4.6-20.9 ton models and allow for efficient cooling utilizing 2-stages of compressor operation.

Convertible Units — The air handlers ship in a horizontal configuration. They can be easily converted to vertical by simply repositioning the drain pan. Units come complete with duct flanges so the contractor doesn't have to field fabricate them. These duct flanges are a time and cost saver.

Crankcase Heaters — These band heaters provide improved compressor reliability by warming the oil to prevent migration during off-cycles or low ambient conditions.

Dual Sloped Drain Pans— Every Odyssey unit has a non-corrosive, removable, double sloped drain pan that's easy to clean and reversible to allow installation of drain trap in two positions on either side of the unit.

Easy Access Low Voltage Terminal Board — Odyssey's Low Voltage Terminal Board is external to the line voltage electrical cabinet. It is extremely easy to locate and attach the thermostat wire and test operation of all unit functions. This is another cost and time saving installation feature.

Electric Heaters — Electric heat modules are available in a variety of voltages and capacities.

Foil Faced Insulation — All internal air handler surfaces have cleanable foil-faced insulation. All edges are either captured or sealed to ensure insulation fibers do not get into the airstream.

Hail/Vandal Guards — These coil guards shall be either factory or field installed for condenser coil protection. This feature protects the condenser coil from vandalism and/or hail damage. When ordered factory installed, it also adds additional shipping protection.

High/Low Static Motor — Available on many models, this high static motor accessory extends the capability of the standard unit.

High Pressure Control — All units include High Pressure Control as standard.

Low Ambient — Provides ability to cool space when outdoor ambient is below 50°F. Choice of fan on/off or modulating control.

Low Ambient Cooling — All Odyssey microprocessor units have cooling capabilities down to 0° F as standard.

Low Voltage Connections — The wiring of the low voltage connections to the unit and the zone sensors is as simple as 1-1, 2-2, and 3-3. This simplified system makes it easy for the installer to wire.

Phase Monitor/Reversal Protection — Phase monitor shall provide 100% protection for motors and compressors against problems caused by phase loss, phase imbalance, and phase reversal. Phase monitors are equipped with an LED that provides an ON or FAULT indicator.

Quick-Access Panels — Remove a few screws for access to the standardized internal components and wiring.

Single Point Power — A single electrical connection powers the unit.

Single Side Service — Single side service is standard on all units.

Standardized Components — Components are placed in the same location on all Odyssey units. Because of these standardized components throughout the Odyssey line, contractors/ owners can stock fewer parts.

Thermal Expansion Valve with Bypass Check Valves — This feature is standard on all indoor units.

Unit Cabinet — The compact cabinet takes up less room and is less costly to ship. It's cabinet design also ensures water integrity.

Table 1. Odyssey features – standard and optional

		Options[a]	
	Standard Features	Factory Installed	Field Installed
1-year Limited Parts Warranty	X		
5-year Limited Compressor Warranty	X		
Anti-Short Cycle Timer	X		
Belt Drive Motors	X		
Black Epoxy Pre-Coated Coils		X	
Colored and Numbered Wiring	X		
Compressor Discharge Temperature Limit (DTL)	X		
Convertible Airflow	X		
Crankcase Heaters	X		
Easy Access Low Voltage Terminal Board (LTB)	X		
Electric Heaters			X
Filters	X		
Foil-Faced and Edge Captured Insulation	X		
Hail/Vandal Guards		X	X
High Pressure Control	X		
High Static Motor Kit[b]			X
Hot Gas Bypass			X
IAQ Dual Sloped and Removable Drain Pans	X		
Liquid Line Refrigerant Drier	X		
Low Ambient Cooling			X
Low Ambient Cooling to 50°F on Electromechanical Models	X		
Low Pressure Control	X		
Low Static Motor Kit[b]			X
Low Voltage Circuit Protection	X		
Phase Loss/Reversal Monitor	X		
Quick Access Panels	X		
Scroll Compressors	X		

Table 1. Odyssey features – standard and optional (continued)

	Standard Features	Options[a]	
		Factory Installed	Field Installed
Single Point Power	X		
Single Side Service	X		
Standardized Components	X		
Thermal Expansion Valve	X		
Vibration Isolators			X

(a) Refer to model number description for option availability or contact Product Support.
(b) Available on standard units only. See Accessories chapter for more information.

Standard and Optional Controls

ReliaTel™

Figure 4. ReliaTel board

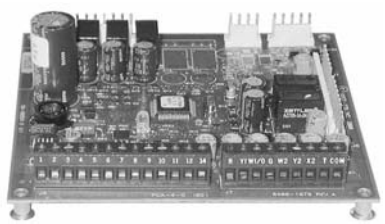
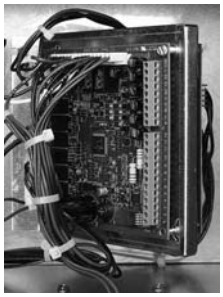


Figure 5. ReliaTel module



ReliaTel controls provide unit control for heating, cooling, and ventilating, utilizing input from sensors that measure outdoor and indoor temperature. ReliaTel also provides outputs for building automation systems and expanded diagnostics. Quality and reliability are enhanced through ReliaTel control and logic:

- Prevents the unit from short cycling, considerably improving compressor life.
- Ensures the compressor will run for a specific amount of time which allows oil to return for better lubrication, enhancing the reliability of the compressor.
- Reduces the number of components required to operate the unit, reducing possibilities for component failure.

ReliaTel Makes Installing and Servicing Easy

ReliaTel eliminates the need for field-installed, anti-short cycle timer and time delay relays. The wiring of the low voltage connections to the unit and the zone sensors is as easy as 1-1, 2-2, and 3-3. This simplified system makes wiring easier for the installer.

ReliaTel Makes Testing Easy

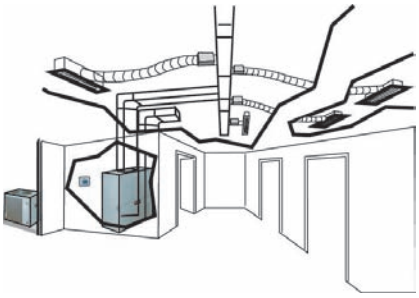
ReliaTel requires no special tools to run the unit through its paces. Simply place a jumper between Test 1 and Test 2 terminals on the Low Voltage Terminal Board and the unit will walk through its operational steps automatically. The unit automatically returns control to the zone sensor after stepping through the test mode a single time, even if the jumper is left on the unit. As long as the unit has power and the “system on” LED is lit, ReliaTel is operational. The light indicates that the controls are functioning properly. ReliaTel features expanded diagnostic capabilities when utilized with Trane Integrated Comfort™ Systems. Some zone sensor options have central control panel lights which indicate the mode the unit is in and possible diagnostic information (dirty filters for example).

ReliaTel Has Other Benefits

- The ReliaTel built-in anti-shortcycle timer, time delay relay and minimum “on” time control functions are factory tested to assure proper operation.
- ReliaTel softens electrical “spikes” by staging on fans, compressors and heaters.
- Intelligent Fallback is a benefit to the building occupant. If a component goes astray, the unit will continue to operate at predetermined temperature setpoint.
- Intelligent Anticipation is a standard feature. It functions continuously as ReliaTel and zone sensor(s) work together in harmony to provide much tighter comfort control than conventional electromechanical thermostats.
- The ReliaTel design is standardized across the board, ensuring a lower cost to owners.

Additional Controls

VariTrac® Building Automation System — When Trane’s changeover VAV System for light commercial applications is coupled with the unit, it provides the latest in technological advances for comfort management systems and can allow thermostat control in every zone served by VariTrac.



Trane Communication Interface (TCI) — This module, when applied with ReliaTel, easily interfaces with the Trane Integrated Comfort System™.

Frostat™ — This control utilizes a capillary bulb embedded in the face of the evaporator coil which monitors coil temperature to inhibit evaporator icing and protect the compressor. Recommended for applications with low leaving air temperatures, low airflow and/or high latent load applications.

LonTalk® Communications Interface — The LonTalk communications interface allows the unit to communicate as a Tracer™ LCI-V device or directly with generic LonTalk Network Building Automation System Controls.

BACnet® Communication Interface (BCI) — The BACnet Communication Interface allows the unit to communicate directly with a generic open protocol BACnet MS/TP Network Building Automation Control System.

Zone Sensors/Thermostats— Available in wireless, programmable, automatic and manual styles.

Table 2. Odyssey control options – standard and optional

	Standard Features	Options[a]	
		Factory Installed	Field Installed
BACnet Communication Interface (BCI)			X
Froststat - Evaporator Defrost Control (EDC)	X		
LonTalk Communications Interface (LCI)		X	X
ReliaTel Microprocessor Controls	X	X	
Thermostat			X
Trane Communications Interface (TCI)			X

Table 2. Odyssey control options – standard and optional (continued)

	Standard Features	Options[a]	
		Factory Installed	Field Installed
Wireless Zone Sensor			X
Zone Sensor			X

[a] Refer to model number description for option availability or contact Product Support.

Application Considerations

Application of this product should be within the cataloged airflow and performance considerations.

Clearance Requirements

The recommended clearances identified with unit dimensions should be maintained to assure adequate serviceability, maximum capacity and peak operating efficiency. Actual clearances which appear inadequate should be reviewed with the local representative.

180° Blower Rotation

The 5, 7.5, and 10 ton standard air handler blower section can be rotated 180° to change the discharge pattern. This modification must be done in the field and requires an additional kit. See unit installation guide.

Low Ambient Cooling

As manufactured, electromechanical units can operate to 50°F in the cooling mode of operation. An accessory head pressure control will allow operation to 0°F outdoor ambient. When using these units with control systems such as bypass changeover Variable Air Volume, make sure to consider the requirement for a head pressure control to allow low ambient cooling.

Figure 6. Typical split system application

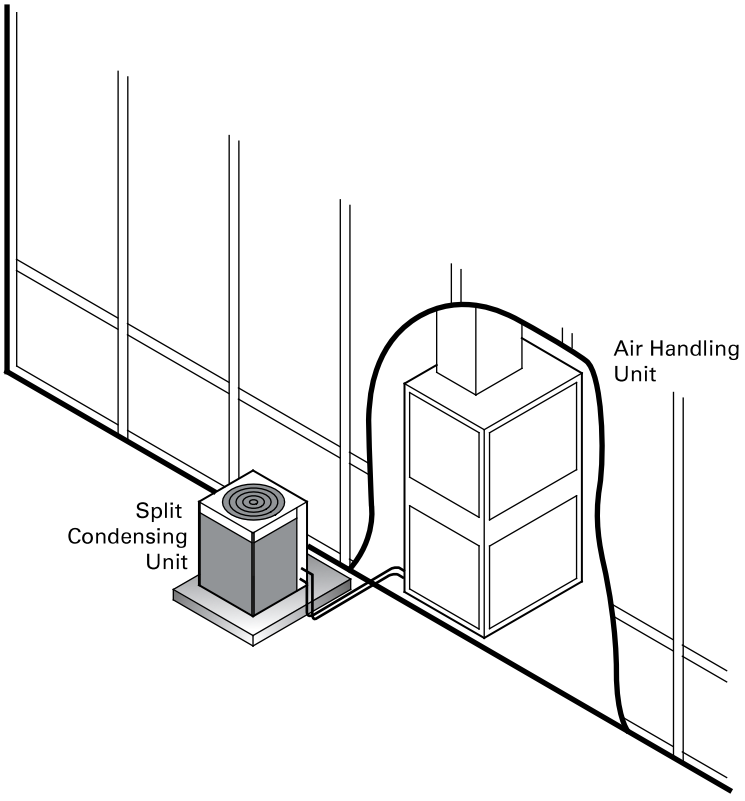


Figure 7. Typical horizontal air handler application

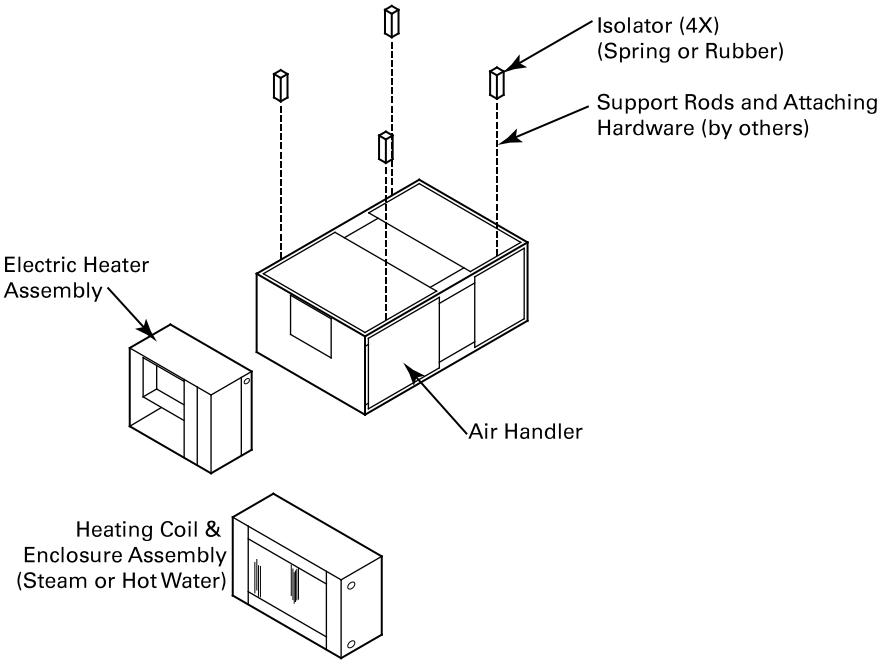
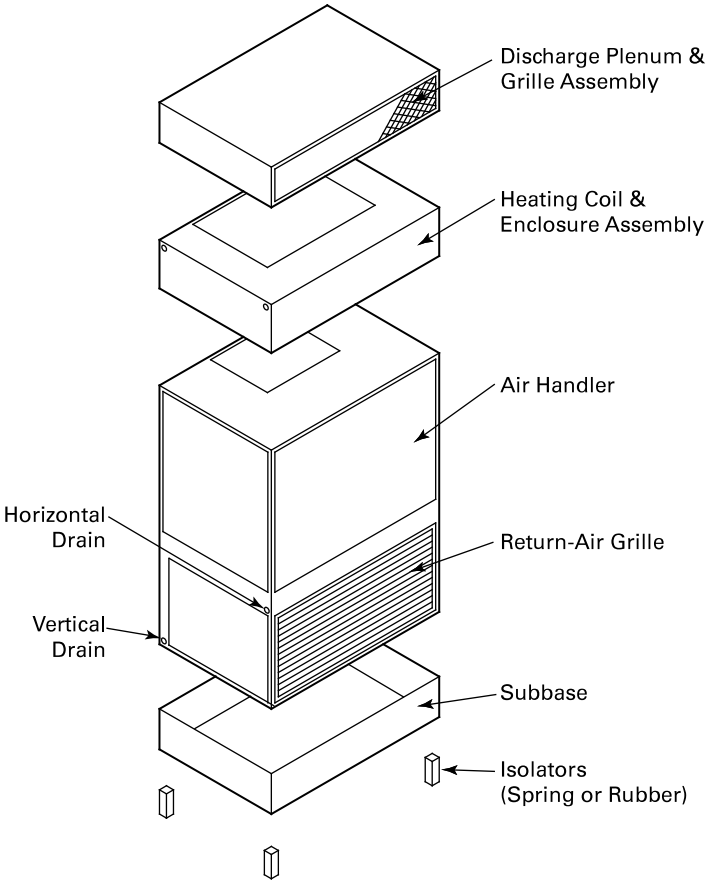


Figure 8. Typical vertical air handler application



Selection Procedure

Cooling Capacity

1. Calculate the building's total and sensible cooling loads at design conditions, using standardized calculation methods.
2. Size the equipment using the gross cooling capacity tables that begin with Table 8, p. 23. Match the cooling loads at design conditions. For example, if the following specifies the building cooling requirements:

   Electrical Characteristics: 415/50/3
   Summer Design Conditions: Entering Evap Coil—80°F DB/67°F WB (27°C DB/19°C WB), Outdoor Ambient—95°F (35°C)
   Total Cooling Load: 75 MBh (22 kW)
   Sensible Cooling Load: 56 MBh (16.4 kW)
   Airflow: 2500 cfm (4248 m^3/h)
   External Static Pressure: .74 inches of water gauge
3. Use Table 8, p. 23 to determine that TWA076D with TWE076D has a gross cooling capacity of 81.1 MBh (23.8 kW) and 63.2 MBh (18.5 kW) sensible capacity at 95°F DB (35°C) ambient and 2500 cfm (4248 m^3/h) with 80°F DB/67° F WB (27°C DB/19°C WB) air entering the evaporator.
4. To find the net cooling capacities, fan motor heat must be subtracted. Determine the total unit static pressure:

   External Static Duct System: 0.74 (191.8 Pa)
   Standard Filter: 0.10 in. (25 Pa)
   Supplementary Electric Heat: .16 in. (40.6 Pa)
   Total Static Pressure: 1 in. (249.09 Pa)

   Notes:

   - *The Evaporator Fan Performance Table has included the effect of a 1 in. (249 Pa) filter already. Therefore, the actual Total Static Pressure is 1 - 0.1 = .9 in. (233.2 Pa) With 2500 cfm (4248 m^3/h) and .93 in. (231.6 Pa) .93 in (231.6 Pa), Table 56, p. 51 shows 1.51 Bhp (ultra high static drive kit required).*
   - *This formula can be used to calculate Fan Motor Heat:*

     3.15 X Bhp = MBh
     3.15 X 1.51 = 4.75 MBh
     Net Total Cooling Capacity = 81.9 MBh - 4.75 MBh = 77.15 MBh (22.6 kW)
     Net Sensible Cooling Capacity = 62.8 MBh - 4.75 MBh = 58.05 MBh (17.0 kW)

Heating Capacity

1. Calculate the building heating load using the Trane calculation form or any other standard accepted method.
2. Size the equipment using Table 72, p. 64 to match the heating loads at design conditions. For example, if the following specifies the building heating requirements:

   Total Heating Load: 90.0 MBh (26.34 kW)
   Outdoor Ambient (Winter): 17°F DB (-8.3°C)
   Indoor Return Temperature: 70°F DB (21.1°C)
   Airflow: 2500 cfm (4248 m^3/h)
3. Table 46, p. 46 indicates the mechanical heating portion of the heat pump will provide 48 MBh for the winter design conditions. Full heat load must be carried by the supplementary heater in the unlikely event the heat pump malfunctions. From Table 72, p. 64, the 34.88 kW heater at 460V has a capacity of 119,045. From Table 77, p. 68, the 34.88 kW heater at 460V indicates the heater model is BAYHTRL435A.

Air Delivery

1. The external static pressure drop through the air distribution system is .74 inches of water gauge, use Table 71, p. 64 to determine that the static pressure drop through the electric heater is 0.16 inches of water (.74 + .16 = .9 in.).
2. Enter Table 56, p. 51 for TWE076D at 2500 cfm (4248 m3/h) and 1.00 (249 Pa) static pressure. The high static motor at 987 RPM gives the desired airflow.

Model Number Description

Heat Pump Condenser

TWA	201	E	3	00	*	*
1 2 3	4 5 6	7	8	9 10	11	12

All products are identified by a multiple-character model number that precisely identifies a particular type of unit. An explanation of the alphanumeric identification code is provided. Its use will enable the owner/operator, installing contractors, and service engineers to define the operation, specific components, and other options for any specific unit. When ordering replacement parts or requesting service, be sure to refer to the specific model number, serial number, and DL number (if applicable) stamped on the unit nameplate.

DIGITS 1 - 3: Product Type

TWA = Split System Heat Pump

DIGITS 4 - 6: Nominal Gross Cooling Capacity (MBh)

061 = 5 Tons (50Hz)
076 = 6.25 Tons (50Hz)
101 = 8.33 Tons (50Hz)
156 = 13.0 Tons (50Hz)
201 = 16.7 Tons (50Hz)

DIGIT 7: Major Development Sequence

DIGIT 8: Electrical Characteristics

D = 380-415/50/3

DIGITS 9 - 10: Factory Installed Options

00 = Packed Stock
0R = ReliaTel, no LCI Board
0T = ReliaTel, no LCI Board with Black Epoxy Coated Coil
0U = ReliaTel, with LCI Board
0W = ReliaTel, with LCI Board and Black Epoxy Coated Coil
HR = Hail Guard with ReliaTel, no LCI Board
HT = Hail Guard with ReliaTel, no LCI Board with Black Epoxy Coated Coil
HU = Hail Guard with ReliaTel, with LCI Board
HW = Hail Guard with ReliaTel, with LCI Board and Black Epoxy Coated Coil

DIGITS 11: Minor Design Sequence

* = Current Design Sequence[1]

DIGITS 12: Service Digit

* = Current Design Sequence[1]

1. * = *sequential alpha character*

Air Handler

TWE	201	E	D	00	*	*
1 2 3	4 5 6	7	8	9 10	11	12

All products are identified by a multiple-character model number that precisely identifies a particular type of unit. An explanation of the alphanumeric identification code is provided. Its use will enable the owner/operator, installing contractors, and service engineers to define the operation, specific components, and other options for any specific unit.

Note: *When ordering replacement parts or requesting service, be sure to refer to the specific model number, serial number, and DL number (if applicable) stamped on the unit nameplate.*

DIGITS 1 - 3: Product Type

TWE = Split System Heat Pump/Cooling Air Handler

DIGITS 4 - 6: Nominal Gross Cooling Capacity (MBh)

051 = 4.6 Tons (50 Hz)
076 = 6.25 Tons (50 Hz)
101 = 8.33 Tons (50 Hz)
126 = 10.4 Tons (50 Hz)
156 = 13.0 Tons (50 Hz)
201 = 16.7 Tons (50 Hz)

DIGIT 7: Major Development Sequence

D = Single Refrigeration Circuit
E = Dual Refrigeration Circuit

DIGIT 8: Electrical Characteristics

D = 380-415/50/3

DIGITS 9 - 10: Factory Installed Options

00 = Packed Stock (Standard)

DIGITS 11: Minor Design Sequence

* = Current Design Sequence[2]

DIGITS 12: Service Digit

* = Current Design Sequence[2]

2. * = *sequential alpha character*

Table 3. General data for 5 - 16.7 ton heat pump, 50 Hz

	5 Tons	6.25 Tons	8.33 Tons	13 Tons	16.7 Tons
	Single Compressor TWA061D	Single Compressor TWA076D	Single Compressor TWA101D	Dual Compressor TWA156E	Dual Compressor TWA201E
Cooling Performance - Gross Cooling Capacity					
Matched Air Handler - Btu (kW)	68,000 (19.11)	81,000 (23.72)	103,000 (30.16)	161,000 (47.14)	219,000 (64.13)
Condensing Unit Only - Btu (kW)	61,000 (17.86)	73,000 (21.38)	96,000 (28.11)	146,000 (42.75)	218,000 (63.83)
ARI Net Cooling Capacity - Btu (kW)	67,000 (19.62)	79,000 (23.13)	101,000 (29.57)	158,000 (46.26)	213,000 (62.37)
Efficiency					
Matched Air Handler / Condensing Unit Only	13.2 / 13.1	12.2 / 12.7	12.9 / 13.6	12.5 / 12.9	11.6 / 13.1
System Power/Condensing Unit Power (kW)	5.08/4.66	6.47/5.75	7.83/7.06	12.64/11.31	18.36/16.65
Heating Performance - ARI Htg/Matched AH					
Hight Temperature Capacity	58000	68000	88000	139000	197000
System kW / COP	4.34 / 3.90	5.11 / 3.90	6.61 / 3.90	11.31 / 3.60	16.97 / 3.40
Low Temperature Capacity	37000	44700	58200	88000	128000
System kW / COP	3.74 / 2.90	4.52 / 2.90	6.09 / 2.80	9.92 / 2.60	15.00 / 2.50
Compressor					
Type	Scroll	Scroll	Scroll	Scroll	Scroll
No.	1	1	1	2	2
System Data					
No. Refrigerant Circuits	1	1	1	2	2
Suction Line, in. (mm) OD	1-1/8 (28.60)	1-3/8 (34.90)	1-3/8 (34.90)	1-3/8 (34.90)	1-3/8 (34.90)
Liquid Line, in. (mm) OD	1/2 (12.70)	5/8 (15.88)	1/2 (12.70)	1/2 (12.70)	5/8 (15.88)
Outdoor Coil					
Type	Lanced	Lanced	Lanced	Lanced	Lanced
Tube Size, in. (mm) OD	3/8 (9.50)	3/8 (9.50)	3/8 (9.50)	3/8 (9.50)	3/8 (9.50)
Face Area, sq ft (m^2)	19.24 (1.79)	19.24 (1.79)	29.02 (2.70)	52.6 (4.89)	52.6 (4.89)
Rows/FPI (Fins per inch)	2/18	2/18	2/18	2/18	2/18
Outdoor Fan					
Type	Propeller	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter - in. (mm)	1/26 (660.40)	1/26 (660.40)	1/28 (711.20)	2/28 (711.20)	2/28 (711.20)
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1
CFM (m^3/h)	5525 (9387)	5525 (9387)	8250 (14017)	16354 (27786)	16354 (27786)
No. Motor/HP (kW)	1/0.33 (0.25)	1/0.33 (0.25)	1/.75 (0.56)	1/.75 (0.56)	1/.75 (0.56)
Motor RPM	925	925	925	925	925
Refrigerant Charge (Field Supplied)					
lbs (kg) of R-410A	20.4 (9.25)	20.6 (9.34)	27.9 (12.7)	47.1 (21.36)	47.0 (21.32)
Shipping Dimensions					
HxWxD - in. (mm)	43.5" x 43" x 36.5" (1106 x 1093 x 928)	43.5" x 43" x 36.5" (1106 x 1093 x 928)	49.5" x 53.3" x 41" (1257 x 1353 x 1042)	49.5" x 94.8" x 47" (1257 x 2407 x 1194)	49.5" x 94.8" x 47" (1257 x 2407 x 1194)

Table 4. General data for 4.6 - 8.33 ton air handler, 50 Hz

	4.6 Tons	6.25 Tons	8.33 Tons	8.33 Tons
	Single Circuit TWE051D	Single Circuit TWE076D	Single Circuit TWE101D	Dual Circuit TWE101E
System Data				
No. Refrigerant Circuits	1	1	1	1
Suction Line Connection, in. (mm) OD	1 1/8 (28.58)	1 3/8 (34.90)	1 3/8 (34.90)	1 1/8 (25.60)
Liquid Line Connection, in. (mm) OD	1/2 (12.70)	1/2 (12.70)	1/2 (12.70)	1/2 (12.70)
Indoor Coil				
Type	Lanced	Lanced	Lanced	Lanced
Tube Size, in. (mm)	3/8 (9.50)	3/8 (9.50)	3/8 (9.50)	3/8 (9.50)
Face Area, sq. ft. (m^2)	5.0 (0.46)	8.1 (0.75)	11.2 (1.04)	11.2 (1.04)
Rows/FPI	4/14	4/14	4/14	4/14
Refrigerant Control	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve
Drain Connection Size, in. (mm)	1.0 (25.40) PVC	1.0 (25.40) PVC	1.0 (25.40) PVC	1.0 (25.40) PVC
Indoor Fan				
Type	Centrifugal	Centrifugal	Centrifugal	Centrifugal
No. Used/Diameter x Width, in. (mm)	1/12 x 12 (304.8 x 304.8)	1/15 x 15 (381.0 x 381.0)	1/15 x 15 (381.0 x 381.0)	1/15 x 15 (381.0 x 381.0)
Drive Type/No. Speeds	Belt/Adjustable	Belt/Adjustable	Belt/Adjustable	Belt/Adjustable
CFM (m^3/h)	2000 (3398)	2500 (4248)	3350 (5692)	3350 (5692)
No. Motors	1	1	1	1
Motor HP - Standard/High Static (kw)	0.75/1.0 (0.56/0.75)	1.5/2.0/3.0 (1.10/1.50/2.2.)	2.0 (1.50)	2.0/3.0 (1.50/2.20)
Motor RPM	1725	1725	1725	1725
Motor Frame Size	56	56H	56HZ	56HZ
Filters				
Type/Furnished	Throwaway/Yes	Throwaway/Yes	Throwaway/Yes	Throwaway/Yes
(No.)/Size Recommended	(1) 16 x 20 x 1; (1) 20 x 20 x 1	(3) 16 X 25 X 1	(4) 16 X 25 X 1	(4) 16 X 25 X 1
Shipping Dimensions				
HxWxD - in. (mm)	52.5" x 25.5" x 41.5" (1334.3 x 647.7 x 1054.1)	58.6" x 28.5" x 51" (1488.4 x 723.9 x 1295.4)	58.6" x 28.5" x 67" (1487.2 x 723.9 x 1701.8)	58.6" x 28.5" x 67" (1487.2 x 723.9 x 1701.8)

Table 5. General data for 10.4 - 16.7 ton air handler, 50 Hz

	10.4 Tons	13 Tons	16.7 Tons
	Dual Circuit TWE126E	Dual Circuit TWE156E	Dual Circuit TWE201E
System Data			
No. Refrigerant Circuits	2	2	2
Suction Line Connection, in. (mm) OD	1 3/8 (34.90)	1 3/8 (34.90)	1 3/8 (34.90)
Liquid Line Connection, in. (mm) OD	1/2 (12.70)	1/2 (12.70)	5/8 (15.88)
Indoor Coil			
Type	Lanced	Lanced	Lanced
Tube Size, in. (mm)	3/8 (9.50)	3/8 (9.50)	3/8 (9.50)
Face Area, sq. ft. (m^2)	16.3 (1.51)	16.3 (1.51)	21.7 (2.01)
Rows/FPI	4/14	4/14	3/14
Refrigerant Control	Expansion Valve	Expansion Valve	Expansion Valve
Drain Connection Size, in. (mm)	1.0 (25.40) PVC	1.0 (25.40) PVC	1.0 (25.40) PVC
Indoor Fan			
Type	Centrifugal	Centrifugal	Centrifugal
No. Used/Diameter x Width, in. (mm)	2/15 x 15 (381.0 x 381.0)	2/15 x 15 (381.0 x 381.0)	2/15 x 15 (381.0 x 381.0)
Drive Type/No. Speeds	Belt/Adjustable	Belt/Adjustable	Belt/Adjustable
CFM (m^3/h)	4200 (7136)	5000 (8495)	6675 (11341)
No. Motors	1	1	1
Motor HP - Standard/High Static (kw)	2.0/3.0/5.0 (1.50/2.20/3.70)	3.0/5.0 (2.20/3.70)	3.0/5.0/7.5 (2.20/ 3.70/5.60)

Table 5. General data for 10.4 - 16.7 ton air handler, 50 Hz (continued)

	10.4 Tons	13 Tons	16.7 Tons
	Dual Circuit TWE126E	**Dual Circuit TWE156E**	**Dual Circuit TWE201E**
Motor RPM	1755	1728/1750	1750/3470
Motor Frame Size	145T	56HZ	184T
Filters			
Type/Furnished	Throwaway/Yes	Throwaway/Yes	Throwaway/Yes
(No.)/Size Recommended	(8) 15 X 20 X 2	(8) 15 X 20 X 2	(4) 16 X 25 X 2; (4) 16 X 20 X 2
Shipping Dimensions			
HxWxD - in. (mm)	73.7" x 31.3" x 83" (1872 x 793.8 x 2108.2)	73.7" x 31.3" x 83" (1872 x 793.8 x 2108.2)	76.5" x 33.8" x 95" (1943.9 x 857.3 x 2413)

Performance Data

Table 6. Gross cooling capacities (MBH) TWA061D condensing unit with TWE076D air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F) 85						Ambient Temperature (°F) 95						Ambient Temperature (°F) 105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
1800	75	64.2	53.8	70.3	41.1	77.1	28.3	60.5	52.3	66.7	39.6	73.2	26.9	57.0	50.6	62.9	38.1	69.1	25.5
	80	64.6	63.8	70.4	51.0	77.2	38.2	61.5	61.5	66.8	49.4	73.3	36.8	58.5	58.5	63.0	47.9	69.2	35.3
	85	67.8	67.8	70.7	60.8	77.3	48.0	64.9	64.9	67.2	59.3	73.4	46.6	61.8	61.8	63.4	57.7	69.3	45.0
	90	71.3	71.3	71.6	70.7	77.5	57.7	68.3	68.3	68.3	68.3	73.6	56.3	65.1	65.1	65.1	65.1	69.5	54.7
2000	75	65.4	57.0	71.4	42.9	78.1	28.8	61.6	55.5	67.6	41.4	74.2	27.4	58.0	53.9	63.7	39.8	70.0	25.9
	80	66.4	66.4	71.5	53.7	78.3	39.8	63.5	63.5	68.4	52.5	74.3	38.3	60.3	60.3	63.9	50.6	70.1	36.8
	85	70.0	70.0	72.0	64.5	78.4	50.5	67.0	67.0	68.9	63.2	74.4	49.0	63.8	63.8	64.6	61.4	70.2	47.5
	90	73.6	73.6	73.6	73.6	78.7	61.2	70.5	70.5	70.5	70.5	74.7	59.8	67.2	67.2	67.1	67.1	70.5	58.3
2200	75	66.4	59.9	72.3	44.7	79.0	29.3	62.6	58.5	68.5	43.2	74.9	27.8	59.0	56.5	64.5	41.6	70.7	26.4
	80	68.2	68.2	72.5	56.5	79.2	41.2	65.2	65.2	68.7	55.0	75.1	39.8	61.9	61.9	64.8	53.4	70.8	38.3
	85	71.9	71.9	73.2	68.2	79.3	53.0	68.8	68.8	69.5	66.7	75.2	51.5	65.5	65.5	65.7	65.2	70.9	50.0
	90	75.6	75.6	75.6	75.6	79.6	64.6	72.4	72.4	72.4	72.4	75.6	63.1	68.9	68.9	68.9	68.9	71.3	61.5
2400	75	67.4	62.8	73.0	46.5	79.7	29.7	63.5	61.1	69.2	44.9	75.6	28.3	59.9	59.5	65.1	43.4	71.3	26.8
	80	69.8	69.8	73.3	59.0	79.9	42.7	66.6	66.6	69.5	57.5	75.8	41.2	63.3	63.3	65.5	55.9	71.4	39.7
	85	73.6	73.6	74.2	71.8	80.1	55.4	70.4	70.4	70.6	70.4	75.9	53.9	66.9	66.9	66.9	66.9	71.6	52.4
	90	77.4	77.4	77.4	77.4	80.5	67.9	74.0	74.0	74.0	74.0	76.4	66.4	70.5	70.5	70.5	70.5	72.1	64.9

CFM	Ent DB (°F)	Ambient Temperature (°F) 115						Ambient Temperature (°F) 125					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
1800	75	53.2	48.9	58.7	36.4	64.8	23.9	49.0	47.1	54.2	34.6	60.0	22.3
	80	55.3	55.3	58.9	46.2	64.8	33.8	51.7	51.7	54.4	44.4	60.0	32.1
	85	58.5	58.5	59.4	56.0	64.9	43.5	54.8	54.8	55.1	54.2	60.1	41.8
	90	61.7	61.7	61.7	61.7	65.1	53.2	57.9	57.9	57.9	57.9	60.4	51.5
2000	75	54.2	52.1	59.5	38.2	65.5	24.4	50.0	50.0	54.9	36.4	60.6	22.7
	80	56.9	56.9	59.8	49.0	65.6	35.3	53.2	53.2	55.2	47.2	60.7	33.6
	85	60.3	60.3	60.6	59.8	65.7	45.9	56.5	56.5	56.5	56.4	60.9	44.3
	90	63.6	63.6	63.6	63.6	66.0	56.6	59.7	59.7	59.7	59.7	61.3	54.9
2200	75	55.1	54.8	60.2	39.9	66.1	24.8	51.2	51.2	55.5	38.2	61.2	23.2
	80	58.4	58.4	60.5	51.6	66.3	36.7	54.5	54.5	55.9	49.8	61.3	35.0
	85	61.8	61.8	61.8	61.8	66.4	48.4	57.9	57.9	57.9	57.9	61.5	46.7
	90	65.2	65.2	65.2	65.2	66.9	59.9	61.2	61.2	61.2	61.2	62.0	58.2
2400	75	56.1	56.1	60.8	41.7	66.7	25.2	52.2	52.2	56.0	39.9	61.6	23.6
	80	59.7	59.7	61.2	54.2	66.8	38.1	55.7	55.7	56.6	52.4	61.8	36.4
	85	63.2	63.2	63.2	63.2	67.0	50.8	59.1	59.1	59.1	59.1	62.0	49.1
	90	66.6	66.6	66.6	66.6	67.6	63.3	62.4	62.4	62.4	62.4	62.8	61.6

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 7. Gross cooling capacities (kW) TWA061D condensing unit with TWE076D air handler (SI)

Airflow m^3/hr	Ent DB (°C)	Ambient Temperature (°C) 30						Ambient Temperature (°C) 35						Ambient Temperature (°C) 40					
		Entering Wet Bulb (°C)						Entering Wet Bulb (°C)						Entering Wet Bulb (°C)					
		16		19		22		16		19		22		16		19		22	
		kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC
3058	24	18.8	15.8	20.6	12.0	22.6	8.3	17.7	15.3	19.5	11.6	21.5	7.9	16.7	14.8	18.4	11.2	20.3	7.5
	27	18.9	18.7	20.6	14.9	22.6	11.2	18.0	18.0	19.6	14.5	21.5	10.8	17.2	17.2	18.5	14.0	20.3	10.4
	30	19.9	19.9	20.7	17.8	22.7	14.1	19.0	19.0	19.7	17.4	21.5	13.6	18.1	18.1	18.6	16.9	20.3	13.2
	33	20.9	20.9	21.0	20.7	22.7	16.9	20.0	20.0	20.0	20.0	21.6	16.5	19.1	19.1	19.1	19.1	20.4	16.0
3398	24	19.2	16.7	20.9	12.6	22.9	8.4	18.1	16.3	19.8	12.1	21.7	8.0	17.0	15.8	18.7	11.7	20.5	7.6
	27	19.5	19.5	21.0	15.7	22.9	11.7	18.6	18.6	20.0	15.4	21.8	11.2	17.7	17.7	18.7	14.8	20.5	10.8
	30	20.5	20.5	21.1	18.9	23.0	14.8	19.6	19.6	20.2	18.5	21.8	14.4	18.7	18.7	18.9	18.0	20.6	13.9
	33	21.6	21.6	21.6	21.6	23.1	18.0	20.7	20.7	20.7	20.7	21.9	17.5	19.7	19.7	19.7	19.7	20.7	17.1
3738	24	19.5	17.5	21.2	13.1	23.1	8.6	18.3	17.2	20.1	12.7	22.0	8.2	17.3	16.6	18.9	12.2	20.7	7.7
	27	20.0	20.0	21.2	16.6	23.2	12.1	19.1	19.1	20.1	16.1	22.0	11.7	18.1	18.1	19.0	15.6	20.8	11.2
	30	21.1	21.1	21.4	20.0	23.2	15.5	20.2	20.2	20.4	19.6	22.0	15.1	19.2	19.2	19.2	19.1	20.8	14.6
	33	22.2	22.2	22.2	22.2	23.3	18.9	21.2	21.2	21.2	21.2	22.2	18.5	20.2	20.2	20.2	20.2	20.9	18.0
4078	24	19.7	18.4	21.4	13.6	23.4	8.7	18.6	17.9	20.3	13.2	22.2	8.3	17.5	17.4	19.1	12.7	20.9	7.9
	27	20.5	20.5	21.5	17.3	23.4	12.5	19.5	19.5	20.4	16.9	22.2	12.1	18.5	18.5	19.2	16.4	20.9	11.6
	30	21.6	21.6	21.8	21.1	23.5	16.2	20.6	20.6	20.7	20.6	22.3	15.8	19.6	19.6	19.6	19.6	21.0	15.4
	33	22.7	22.7	22.7	22.7	23.6	19.9	21.7	21.7	21.7	21.7	22.4	19.5	20.6	20.6	20.6	20.6	21.1	19.0

Airflow m^3/hr	Ent DB (°C)	Ambient Temperature (°C) 45						Ambient Temperature (°C) 52					
		Entering Wet Bulb (°C)						Entering Wet Bulb (°C)					
		16		19		22		16		19		22	
		kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC
3058	24	15.6	14.3	17.2	10.7	19.0	7.0	14.4	13.8	15.9	10.1	17.6	6.5
	27	16.2	16.2	17.3	13.5	19.0	9.9	15.1	15.1	16.0	13.0	17.6	9.4
	30	17.1	17.1	17.4	16.4	19.0	12.7	16.1	16.1	16.1	15.9	17.6	12.2
	33	18.1	18.1	18.1	18.1	19.1	15.6	17.0	17.0	17.0	17.0	17.7	15.1
3398	24	15.9	15.3	17.4	11.2	19.2	7.1	14.7	14.7	16.1	10.7	17.8	6.7
	27	16.7	16.7	17.5	14.4	19.2	10.3	15.6	15.6	16.2	13.8	17.8	9.8
	30	17.7	17.7	17.7	17.5	19.3	13.5	16.5	16.5	16.5	16.5	17.8	13.0
	33	18.6	18.6	18.6	18.6	19.4	16.6	17.5	17.5	17.5	17.5	18.0	16.1
3738	24	16.2	16.1	17.6	11.7	19.4	7.3	15.0	15.0	16.3	11.2	17.9	6.8
	27	17.1	17.1	17.7	15.1	19.4	10.8	16.0	16.0	16.4	14.6	18.0	10.3
	30	18.1	18.1	18.1	18.1	19.5	14.2	17.0	17.0	17.0	17.0	18.0	13.7
	33	19.1	19.1	19.1	19.1	19.6	17.6	17.9	17.9	17.9	17.9	18.2	17.1
4078	24	16.5	16.5	17.8	12.2	19.5	7.4	15.3	15.3	16.4	11.7	18.1	6.9
	27	17.5	17.5	17.9	15.9	19.6	11.2	16.3	16.3	16.6	15.4	18.1	10.7
	30	18.5	18.5	18.5	18.5	19.6	14.9	17.3	17.3	17.3	17.3	18.2	14.4
	33	19.5	19.5	19.5	19.5	19.8	18.5	18.3	18.3	18.3	18.3	18.4	18.1

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. kW = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 8. Gross cooling capacities (MBH) TWA076D condensing unit with TWE076D air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F) 85						Ambient Temperature (°F) 95						Ambient Temperature (°F) 105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
2250	75	76.4	65.1	83.0	49.4	90.6	33.4	72.0	62.9	78.9	47.8	86.1	31.8	68.0	61.1	74.6	46.0	81.5	30.2
	80	76.8	76.8	83.1	61.2	90.7	45.6	73.5	73.5	79.0	59.5	86.3	44.0	70.1	70.1	74.7	57.7	81.6	42.3
	85	80.8	80.8	83.6	73.2	90.9	57.5	77.4	77.4	79.5	71.5	86.4	55.8	73.8	73.8	75.3	69.7	81.7	54.1
	90	84.7	84.7	84.7	84.7	91.0	69.4	81.3	81.3	81.2	81.2	86.6	67.7	77.6	77.6	77.6	77.6	81.9	66.0
2500	75	77.7	68.5	84.2	51.7	91.7	33.9	73.2	66.5	80.0	50.0	87.1	32.3	69.2	64.6	75.5	48.2	82.4	30.7
	80	79.0	79.0	84.4	64.5	91.9	47.3	75.6	75.6	81.1	63.2	87.3	45.7	72.0	72.0	75.7	61.0	82.6	44.0
	85	83.1	83.1	85.0	77.6	92.0	60.4	79.6	79.6	80.9	75.9	87.4	58.8	75.9	75.9	76.6	74.1	82.6	57.1
	90	87.2	87.2	87.2	87.2	92.3	73.6	83.6	83.6	83.6	83.6	87.7	71.7	79.8	79.8	79.7	79.7	83.0	70.0
2750	75	78.9	72.0	85.1	53.9	92.6	34.5	74.3	69.9	80.8	52.2	88.0	32.9	70.2	68.1	76.3	50.4	83.2	31.2
	80	81.0	81.0	85.3	67.6	92.8	49.0	77.4	77.4	81.1	65.8	88.2	47.4	73.7	73.7	76.6	64.0	83.3	45.7
	85	85.2	85.2	86.3	81.9	92.9	63.3	81.6	81.6	82.1	80.2	88.3	61.7	77.7	77.7	77.6	77.6	83.4	60.0
	90	89.4	89.4	89.3	89.3	93.3	77.3	85.6	85.6	85.5	85.5	88.7	75.6	81.6	81.6	81.6	81.6	83.9	73.9
3000	75	80.0	75.4	86.0	56.1	93.4	35.0	75.3	73.3	81.6	54.3	88.7	33.4	71.0	71.0	77.0	52.6	83.8	31.8
	80	82.6	82.6	86.2	70.6	93.6	50.7	79.0	79.0	81.9	68.8	88.9	49.0	75.2	75.2	77.4	67.0	84.0	47.4
	85	87.0	87.0	87.4	86.1	93.7	66.1	83.2	83.2	83.2	83.2	89.0	64.5	79.2	79.2	79.2	79.2	84.1	62.8
	90	91.2	91.2	91.2	91.2	94.2	81.1	87.3	87.3	87.3	87.3	89.5	79.4	83.2	83.2	83.2	83.2	84.7	77.7

CFM	Ent DB (°F)	Ambient Temperature (°F) 115						Ambient Temperature (°F) 125					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
2250	75	63.8	59.1	69.9	44.2	76.6	28.4	59.2	57.1	64.9	42.2	71.2	26.6
	80	66.3	66.3	70.1	55.9	76.7	40.5	62.2	62.2	65.1	53.9	71.4	38.7
	85	70.0	70.0	70.8	67.8	76.7	52.4	65.8	65.8	66.0	65.9	71.4	50.5
	90	73.7	73.7	73.6	73.6	77.0	64.1	69.4	69.4	69.4	69.4	71.8	62.2
2500	75	64.9	62.7	70.8	46.4	77.4	29.0	60.2	60.2	65.7	44.4	72.0	27.2
	80	68.1	68.1	71.0	59.0	77.5	42.2	63.9	63.9	66.0	57.0	72.1	40.4
	85	71.9	71.9	71.9	71.9	77.6	55.3	67.6	67.6	67.6	67.6	72.2	53.4
	90	75.7	75.7	75.7	75.7	78.0	68.2	71.2	71.2	71.2	71.2	72.7	66.3
2750	75	65.8	65.8	71.5	48.5	78.1	29.5	61.5	61.5	66.3	46.6	72.6	27.7
	80	69.7	69.7	71.8	62.1	78.2	43.9	65.3	65.3	66.8	60.1	72.7	42.1
	85	73.6	73.6	73.5	73.5	78.3	58.2	69.1	69.1	69.1	69.1	72.9	56.3
	90	77.4	77.4	77.4	77.4	78.9	72.1	72.8	72.8	72.8	72.8	73.6	70.2
3000	75	67.1	67.1	72.1	50.7	78.6	30.0	62.7	62.7	66.8	48.7	73.1	28.2
	80	71.1	71.1	72.6	65.2	78.8	45.6	66.6	66.6	67.5	63.2	73.2	43.7
	85	75.0	75.0	75.0	75.0	78.9	60.8	70.4	70.4	70.3	70.3	73.4	58.9
	90	78.8	78.8	78.8	78.8	79.7	75.9	74.1	74.1	74.1	74.1	74.4	74.1

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 9. Gross cooling capacities (kW) TWA076D condensing unit with TWE076D air handler (SI)

Airflow m^3/hr	Ent DB (°C)	Ambient Temperature (°C) 30						Ambient Temperature (°C) 35						Ambient Temperature (°C) 40					
		Entering Wet Bulb (°C)						Entering Wet Bulb (°C)						Entering Wet Bulb (°C)					
		16		19		22		16		19		22		16		19		22	
		kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC
3823	24	22.4	19.1	24.3	14.5	26.6	9.8	21.1	18.4	23.1	14.0	25.2	9.3	19.9	17.9	21.8	13.5	23.9	8.8
	27	22.5	22.5	24.4	17.9	26.6	13.4	21.6	21.6	23.2	17.4	25.3	12.9	20.5	20.5	21.9	16.9	23.9	12.4
	30	23.7	23.7	24.5	21.5	26.6	16.9	22.7	22.7	23.3	20.9	25.3	16.4	21.6	21.6	22.1	20.4	23.9	15.9
	33	24.8	24.8	24.8	24.8	26.7	20.3	23.8	23.8	23.8	23.8	25.4	19.9	22.7	22.7	22.7	22.7	24.0	19.4
4248	24	22.8	20.1	24.7	15.1	26.9	9.9	21.5	19.5	23.4	14.6	25.5	9.5	20.3	18.9	22.1	14.1	24.1	9.0
	27	23.2	23.2	24.7	18.9	26.9	13.9	22.2	22.2	23.8	18.5	25.6	13.4	21.1	21.1	22.2	17.9	24.2	12.9
	30	24.4	24.4	24.9	22.7	27.0	17.7	23.3	23.3	23.7	22.2	25.6	17.2	22.2	22.2	22.4	21.7	24.2	16.7
	33	25.6	25.6	25.6	25.6	27.0	21.6	24.5	24.5	24.5	24.5	25.7	21.0	23.4	23.4	23.4	23.4	24.3	20.5
4672	24	23.1	21.1	25.0	15.8	27.1	10.1	21.8	20.5	23.7	15.3	25.8	9.6	20.6	20.0	22.4	14.8	24.4	9.2
	27	23.7	23.7	25.0	19.8	27.2	14.4	22.7	22.7	23.8	19.3	25.8	13.9	21.6	21.6	22.4	18.8	24.4	13.4
	30	25.0	25.0	25.3	24.0	27.2	18.6	23.9	23.9	24.1	23.5	25.9	18.1	22.8	22.8	22.8	22.8	24.4	17.6
	33	26.2	26.2	26.2	26.2	27.3	22.7	25.1	25.1	25.1	25.1	26.0	22.2	23.9	23.9	23.9	23.9	24.6	21.7
5097	24	23.4	22.1	25.2	16.4	27.4	10.3	22.1	21.5	23.9	15.9	26.0	9.8	20.8	20.8	22.6	15.4	24.6	9.3
	27	24.2	24.2	25.3	20.7	27.4	14.9	23.1	23.1	24.0	20.2	26.1	14.4	22.0	22.0	22.7	19.6	24.6	13.9
	30	25.5	25.5	25.6	25.2	27.5	19.4	24.4	24.4	24.4	24.4	26.1	18.9	23.2	23.2	23.2	23.2	24.6	18.4
	33	26.7	26.7	26.7	26.7	27.6	23.8	25.6	25.6	25.6	25.6	26.2	23.3	24.4	24.4	24.4	24.4	24.8	22.8

Airflow m^3/hr	Ent DB (°C)	Ambient Temperature (°C) 45						Ambient Temperature (°C) 52					
		Entering Wet Bulb (°C)						Entering Wet Bulb (°C)					
		16		19		22		16		19		22	
		kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC
3823	24	18.7	17.3	20.5	12.9	22.4	8.3	17.4	16.7	19.0	12.4	20.9	7.8
	27	19.4	19.4	20.5	16.4	22.5	11.9	18.2	18.2	19.1	15.8	20.9	11.3
	30	20.5	20.5	20.7	19.9	22.5	15.3	19.3	19.3	19.4	19.3	20.9	14.8
	33	21.6	21.6	21.6	21.6	22.6	18.8	20.3	20.3	20.3	20.3	21.0	18.2
4248	24	19.0	18.4	20.7	13.6	22.7	8.5	17.6	17.6	19.2	13.0	21.1	8.0
	27	20.0	20.0	20.8	17.3	22.7	12.4	18.7	18.7	19.3	16.7	21.1	11.8
	30	21.1	21.1	21.1	21.1	22.7	16.2	19.8	19.8	19.8	19.8	21.2	15.7
	33	22.2	22.2	22.2	22.2	22.9	20.0	20.9	20.9	20.9	20.9	21.3	19.4
4672	24	19.3	19.3	21.0	14.2	22.9	8.7	18.0	18.0	19.4	13.6	21.3	8.1
	27	20.4	20.4	21.1	18.2	22.9	12.9	19.1	19.1	19.6	17.6	21.3	12.3
	30	21.6	21.6	21.6	21.6	22.9	17.1	20.2	20.2	20.2	20.2	21.4	16.5
	33	22.7	22.7	22.7	22.7	23.1	21.1	21.3	21.3	21.3	21.3	21.6	20.6
5097	24	19.7	19.7	21.1	14.9	23.0	8.8	18.4	18.4	19.6	14.3	21.4	8.3
	27	20.8	20.8	21.3	19.1	23.1	13.4	19.5	19.5	19.8	18.5	21.5	12.8
	30	22.0	22.0	22.0	22.0	23.1	17.8	20.6	20.6	20.6	20.6	21.5	17.3
	33	23.1	23.1	23.1	23.1	23.4	22.3	21.7	21.7	21.7	21.7	21.8	21.7

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. kW = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 10. Gross cooling capacities (MBH) TWA101D condensing unit with TWE101D air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F) 85						Ambient Temperature (°F) 95						Ambient Temperature (°F) 105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3025	75	97.6	83.4	107.3	64.8	117.4	43.3	92.8	81.0	101.9	62.6	111.4	41.2	87.7	78.6	96.2	60.3	105.1	39.0
	80	99.0	99.0	107.6	79.2	117.6	59.0	94.8	94.8	102.1	76.9	111.6	56.8	90.4	90.4	96.4	74.5	105.3	54.5
	85	104.3	104.3	108.0	94.6	117.9	74.5	100.0	100.0	102.7	92.3	111.8	72.2	95.3	95.3	97.1	89.9	105.5	69.9
	90	109.6	109.6	109.6	109.6	118.1	89.9	105.0	105.0	105.0	105.0	112.1	87.6	100.2	100.2	100.2	100.2	105.8	85.3
3350	75	99.2	87.6	108.8	67.7	118.8	44.0	94.3	85.2	103.2	65.5	112.6	41.9	89.0	82.8	97.4	63.2	106.2	39.7
	80	101.8	101.8	109.0	83.1	119.1	61.1	97.4	97.4	103.4	80.7	112.9	58.8	92.7	92.7	97.6	78.2	106.5	56.5
	85	107.2	107.2	109.8	99.8	119.3	78.0	102.6	102.6	104.3	97.5	113.1	75.7	97.8	97.8	98.7	95.1	106.7	73.4
	90	112.7	112.7	112.6	112.6	119.5	94.6	107.9	107.9	107.9	107.9	113.4	92.3	102.8	102.8	102.8	102.8	107.0	89.8
3675	75	100.6	91.7	110.0	70.6	119.9	44.7	95.6	89.3	104.3	68.3	113.6	42.6	90.3	86.9	98.4	66.0	107.1	40.4
	80	104.1	104.1	110.2	86.6	120.3	63.1	99.6	99.6	104.6	84.3	114.0	60.8	94.7	94.7	98.6	81.8	107.4	58.5
	85	109.8	109.8	111.3	104.9	120.6	81.4	105.0	105.0	105.8	102.6	114.2	79.1	99.9	99.9	99.8	99.8	107.6	76.7
	90	115.4	115.4	115.3	115.3	120.9	99.2	110.3	110.3	110.3	110.3	114.6	96.9	105.0	105.0	105.0	105.0	108.1	94.4
4000	75	101.9	95.6	111.1	73.4	120.9	45.4	96.8	93.3	105.3	71.2	114.5	43.3	91.5	90.9	99.2	68.9	107.9	41.1
	80	106.2	106.2	111.3	90.2	121.3	65.1	101.5	101.5	105.6	87.8	114.9	62.8	96.5	96.5	99.6	85.3	108.2	60.4
	85	112.0	112.0	112.8	109.9	121.6	84.7	107.1	107.1	107.0	107.0	115.1	82.4	101.8	101.8	101.7	101.7	108.4	80.0
	90	117.7	117.7	117.6	117.6	122.1	103.8	112.5	112.5	112.4	112.4	115.7	101.4	107.0	107.0	107.0	107.0	109.1	98.9

CFM	Ent DB (°F)	Ambient Temperature (°F) 115						Ambient Temperature (°F) 125					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3025	75	82.2	76.1	90.2	57.9	98.6	36.7	76.5	73.4	83.8	55.4	91.6	34.4
	80	85.5	85.5	90.4	72.0	98.8	52.1	80.3	80.3	84.0	69.3	91.9	49.6
	85	90.3	90.3	91.3	87.4	99.0	67.5	85.0	85.0	85.2	84.8	92.0	65.0
	90	95.0	95.0	95.0	95.0	99.3	82.6	89.5	89.5	89.4	89.4	92.4	80.1
3350	75	83.6	80.3	91.2	60.8	99.5	37.4	77.8	77.6	84.7	58.3	92.5	35.1
	80	87.7	87.7	91.5	75.7	99.8	54.1	82.3	82.3	85.1	73.0	92.7	51.7
	85	92.6	92.6	92.9	92.6	100.0	70.9	87.0	87.0	87.0	87.0	92.9	68.4
	90	97.4	97.4	97.3	97.3	100.4	87.4	91.6	91.6	91.6	91.6	93.5	84.8
3675	75	84.8	84.4	92.1	63.6	100.3	38.1	79.1	79.1	85.5	61.1	93.2	35.8
	80	89.5	89.5	92.5	79.3	100.6	56.1	84.0	84.0	86.0	76.6	93.5	53.6
	85	94.5	94.5	94.5	94.5	100.8	74.3	88.7	88.7	88.7	88.7	93.6	71.5
	90	99.4	99.4	99.4	99.4	101.5	92.0	93.4	93.4	93.4	93.4	94.5	89.4
4000	75	86.0	86.0	92.8	66.5	101.0	38.8	80.5	80.5	86.1	64.0	93.8	36.5
	80	91.2	91.2	93.4	82.8	101.3	58.0	85.5	85.5	86.8	80.1	94.1	55.5
	85	96.2	96.2	96.2	96.2	101.5	77.3	90.3	90.3	90.2	90.2	94.3	74.7
	90	101.2	101.2	101.1	101.1	102.4	96.5	94.9	94.9	94.9	94.9	95.4	93.9

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 11. Gross cooling capacities (kW) TWA101D condensing unit with TWE101D air handler (SI)

Airflow m^3/hr	Ent DB (°C)	Ambient Temperature (°C) 30						Ambient Temperature (°C) 35						Ambient Temperature (°C) 40					
		Entering Wet Bulb (°C)						Entering Wet Bulb (°C)						Entering Wet Bulb (°C)					
		16		19		22		16		19		22		16		19		22	
		kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC
5148	24	28.6	24.4	31.4	19.0	34.4	12.7	27.2	23.8	29.9	18.3	32.6	12.1	25.7	23.0	28.2	17.7	30.8	11.4
	27	29.0	29.0	31.5	23.2	34.5	17.3	27.8	27.8	29.9	22.5	32.7	16.6	26.5	26.5	28.3	21.8	30.9	16.0
	30	30.6	30.6	31.7	27.7	34.5	21.8	29.3	29.3	30.1	27.0	32.8	21.2	27.9	27.9	28.5	26.3	30.9	20.5
	33	32.1	32.1	32.1	32.1	34.6	26.3	30.8	30.8	30.8	30.8	32.8	25.7	29.4	29.4	29.4	29.4	31.0	25.0
5692	24	29.1	25.7	31.9	19.8	34.8	12.9	27.6	25.0	30.2	19.2	33.0	12.3	26.1	24.3	28.5	18.5	31.1	11.6
	27	29.8	29.8	32.0	24.3	34.9	17.9	28.5	28.5	30.3	23.7	33.1	17.2	27.2	27.2	28.6	22.9	31.2	16.6
	30	31.4	31.4	32.2	29.3	35.0	22.9	30.1	30.1	30.6	28.6	33.2	22.2	28.7	28.7	28.9	27.9	31.3	21.5
	33	33.0	33.0	33.0	33.0	35.0	27.7	31.6	31.6	31.6	31.6	33.2	27.0	30.1	30.1	30.1	30.1	31.4	26.3
6252	24	29.5	26.9	32.2	20.7	35.1	13.1	28.0	26.2	30.6	20.0	33.3	12.5	26.5	25.5	28.8	19.4	31.4	11.8
	27	30.5	30.5	32.3	25.4	35.3	18.5	29.2	29.2	30.6	24.7	33.4	17.8	27.8	27.8	28.9	24.0	31.5	17.1
	30	32.2	32.2	32.6	30.7	35.3	23.9	30.8	30.8	31.0	30.1	33.5	23.2	29.3	29.3	29.3	29.3	31.5	22.5
	33	33.8	33.8	33.8	33.8	35.4	29.1	32.3	32.3	32.3	32.3	33.6	28.4	30.8	30.8	30.8	30.8	31.7	27.7
6796	24	29.9	28.0	32.5	21.5	35.4	13.3	28.4	27.3	30.8	20.9	33.6	12.7	26.8	26.6	29.1	20.2	31.6	12.0
	27	31.1	31.1	32.6	26.4	35.6	19.1	29.8	29.8	30.9	25.7	33.7	18.4	28.3	28.3	29.2	25.0	31.7	17.7
	30	32.8	32.8	33.1	32.2	35.6	24.8	31.4	31.4	31.3	31.3	33.7	24.2	29.8	29.8	29.8	29.8	31.8	23.5
	33	34.5	34.5	34.5	34.5	35.8	30.4	33.0	33.0	33.0	33.0	33.9	29.7	31.3	31.3	31.3	31.3	32.0	29.0

Airflow m^3/hr	Ent DB (°C)	Ambient Temperature (°C) 45						Ambient Temperature (°C) 52					
		Entering Wet Bulb (°C)						Entering Wet Bulb (°C)					
		16		19		22		16		19		22	
		kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC
5148	24	24.1	22.3	26.4	17.0	28.9	10.8	22.4	21.5	24.6	16.2	26.9	10.1
	27	25.1	25.1	26.5	21.1	29.0	15.3	23.5	23.5	24.6	20.3	26.9	14.5
	30	26.5	26.5	26.8	25.6	29.0	19.8	24.9	24.9	25.0	24.9	27.0	19.0
	33	27.8	27.8	27.8	27.8	29.1	24.2	26.2	26.2	26.2	26.2	27.1	23.5
5692	24	24.5	23.5	26.7	17.8	29.2	11.0	22.8	22.8	24.8	17.1	27.1	10.3
	27	25.7	25.7	26.8	22.2	29.2	15.9	24.1	24.1	24.9	21.4	27.2	15.1
	30	27.1	27.1	27.2	27.1	29.3	20.8	25.5	25.5	25.5	25.5	27.2	20.1
	33	28.5	28.5	28.5	28.5	29.4	25.6	26.8	26.8	26.8	26.8	27.4	24.9
6252	24	24.9	24.7	27.0	18.7	29.4	11.2	23.2	23.2	25.0	17.9	27.3	10.5
	27	26.2	26.2	27.1	23.2	29.5	16.4	24.6	24.6	25.2	22.5	27.4	15.7
	30	27.7	27.7	27.7	27.7	29.5	21.8	26.0	26.0	26.0	26.0	27.4	21.0
	33	29.1	29.1	29.1	29.1	29.7	27.0	27.4	27.4	27.4	27.4	27.7	26.2
6796	24	25.2	25.2	27.2	19.5	29.6	11.4	23.6	23.6	25.2	18.7	27.5	10.7
	27	26.7	26.7	27.4	24.3	29.7	17.0	25.0	25.0	25.4	23.5	27.6	16.3
	30	28.2	28.2	28.2	28.2	29.7	22.6	26.5	26.5	26.4	26.4	27.6	21.9
	33	29.6	29.6	29.6	29.6	30.0	28.3	27.8	27.8	27.8	27.8	28.0	27.5

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. kW = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 12. Gross cooling capacities (MBH) TWA156E condensing unit with TWE156E air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F) 85						Ambient Temperature (°F) 95						Ambient Temperature (°F) 105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
4500	75	151.0	126.3	167.9	99.8	185.8	68.3	143.0	122.5	159.2	96.3	176.5	64.9	134.5	118.5	149.7	92.5	166.3	61.3
	80	153.1	150.2	168.1	120.6	186.0	91.5	145.3	145.3	159.3	116.8	176.6	88.0	138.1	138.1	149.9	112.9	166.4	84.2
	85	160.6	160.6	168.5	143.5	186.2	114.3	153.9	153.9	160.0	139.9	176.8	110.7	146.5	146.5	150.8	136.0	166.5	106.9
	90	169.3	169.3	170.7	167.2	186.4	137.0	162.3	162.3	162.2	162.2	176.9	133.3	154.7	154.7	154.6	154.6	166.6	129.5
5000	75	153.8	132.9	170.6	104.5	188.6	69.5	145.7	129.1	161.7	100.9	179.0	66.2	137.0	125.1	152.0	97.1	168.6	62.6
	80	156.8	156.8	170.8	126.5	188.8	94.8	149.8	149.8	161.8	122.8	179.2	91.2	142.3	142.3	152.1	118.7	168.7	87.4
	85	165.8	165.8	171.6	151.8	189.0	119.7	158.7	158.7	162.9	148.1	179.3	116.1	150.9	150.9	153.6	144.2	168.8	112.2
	90	174.9	174.9	174.8	174.8	189.2	144.5	167.4	167.4	167.4	167.4	179.5	140.8	159.5	159.5	159.4	159.4	169.1	137.0
5500	75	156.3	139.3	172.9	109.0	190.9	70.7	148.0	135.5	163.7	105.4	181.1	67.3	139.2	131.5	153.9	101.6	170.6	63.8
	80	161.0	161.0	173.1	132.3	191.1	97.9	153.8	153.8	163.9	128.5	181.3	94.3	145.9	145.9	154.1	124.5	170.6	90.5
	85	170.3	170.3	174.4	159.8	191.4	124.9	162.8	162.8	165.6	156.1	181.5	121.2	154.8	154.8	156.2	152.2	170.7	117.3
	90	179.7	179.7	179.6	179.6	191.7	151.8	172.0	172.0	172.0	172.0	181.9	148.1	163.7	163.7	163.6	163.6	171.3	144.3
6000	75	158.5	145.6	174.8	113.5	192.9	71.9	150.2	141.7	165.5	109.9	182.9	68.5	141.3	137.7	155.4	106.1	172.1	64.9
	80	164.7	164.7	175.1	137.8	193.1	100.9	157.2	157.2	165.8	134.0	183.1	97.3	149.1	149.1	155.9	130.0	172.2	93.4
	85	174.3	174.3	177.0	167.5	193.4	129.9	166.6	166.6	168.1	163.9	183.3	126.2	158.3	158.3	158.1	158.1	172.4	122.3
	90	184.0	184.0	183.9	183.9	193.9	158.9	176.0	176.0	175.9	175.9	184.0	155.2	167.4	167.4	167.3	167.3	173.3	151.4

CFM	Ent DB (°F)	Ambient Temperature (°F) 115						Ambient Temperature (°F) 125					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
4500	75	125.5	114.3	139.6	88.5	155.3	57.5	115.7	109.8	128.6	84.2	143.3	53.4
	80	130.3	130.3	139.8	108.7	155.4	80.2	121.6	121.6	128.9	104.3	143.5	75.9
	85	138.4	138.4	141.1	131.9	155.5	102.8	129.5	129.5	130.6	127.6	143.6	98.5
	90	146.4	146.4	146.3	146.3	155.8	125.4	137.3	137.3	137.3	137.3	144.1	121.2
5000	75	127.8	120.9	141.6	93.0	157.4	58.7	118.0	116.4	130.3	88.7	145.1	54.6
	80	134.1	134.1	141.9	114.6	157.5	83.4	125.2	125.2	130.8	110.1	145.2	79.1
	85	142.5	142.5	143.8	140.1	157.5	108.1	133.3	133.3	133.2	133.2	145.3	103.8
	90	150.9	150.9	150.7	150.7	158.1	132.9	141.3	141.3	141.3	141.3	146.1	128.6
5500	75	129.9	127.3	143.2	97.5	159.0	59.9	120.0	120.0	131.7	93.2	146.6	55.8
	80	137.5	137.5	143.7	120.3	159.2	86.4	128.2	128.2	132.4	115.8	146.7	82.1
	85	146.1	146.1	146.0	146.0	159.2	113.2	136.5	136.5	136.4	136.4	146.8	108.9
	90	154.7	154.7	154.7	154.7	160.1	140.2	144.8	144.8	144.8	144.8	148.0	135.9
6000	75	131.6	131.6	144.6	102.0	160.5	61.1	122.4	122.4	133.0	97.6	147.8	56.9
	80	140.5	140.5	145.3	125.8	160.6	89.4	130.9	130.9	134.0	121.3	147.9	85.0
	85	149.3	149.3	149.2	149.2	160.7	118.2	139.4	139.4	139.3	139.3	148.1	113.8
	90	158.1	158.1	158.1	158.1	161.9	147.3	147.9	147.9	147.9	147.9	149.8	143.0

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 13. Gross cooling capacities (kW) TWA156E heat pump with TWE156E air handler (SI)

Airflow m^3/hr	Ent DB (°C)	Ambient Temperature (°C) 30						Ambient Temperature (°C) 35						Ambient Temperature (°C) 40					
		Entering Wet Bulb (°C)						Entering Wet Bulb (°C)						Entering Wet Bulb (°C)					
		16		19		22		16		19		22		16		19		22	
		kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC
7646	24	44.2	37.0	49.2	29.3	54.5	20.0	41.9	35.9	46.7	28.2	51.7	19.0	39.4	34.7	43.9	27.1	48.7	18.0
	27	44.9	44.0	49.3	35.3	54.5	26.8	42.6	42.6	46.7	34.2	51.8	25.8	40.5	40.5	43.9	33.1	48.8	24.7
	30	47.1	47.1	49.4	42.1	54.6	33.5	45.1	45.1	46.9	41.0	51.8	32.4	42.9	42.9	44.2	39.8	48.8	31.3
	33	49.6	49.6	50.0	49.0	54.6	40.1	47.6	47.6	47.5	47.5	51.8	39.1	45.3	45.3	45.3	45.3	48.8	37.9
8495	24	45.1	39.0	50.0	30.6	55.3	20.4	42.7	37.8	47.4	29.6	52.5	19.4	40.2	36.7	44.5	28.4	49.4	18.3
	27	46.0	46.0	50.1	37.1	55.3	27.8	43.9	43.9	47.4	36.0	52.5	26.7	41.7	41.7	44.6	34.8	49.4	25.6
	30	48.6	48.6	50.3	44.5	55.4	35.1	46.5	46.5	47.7	43.4	52.6	34.0	44.2	44.2	45.0	42.3	49.5	32.9
	33	51.2	51.2	51.2	51.2	55.5	42.3	49.1	49.1	49.1	49.1	52.6	41.3	46.7	46.7	46.7	46.7	49.6	40.1
9345	24	45.8	40.8	50.7	32.0	56.0	20.7	43.4	39.7	48.0	30.9	53.1	19.7	40.8	38.5	45.1	29.8	50.0	18.7
	27	47.2	47.2	50.7	38.8	56.0	28.7	45.1	45.1	48.0	37.6	53.1	27.6	42.8	42.8	45.2	36.5	50.0	26.5
	30	49.9	49.9	51.1	46.8	56.1	36.6	47.7	47.7	48.5	45.7	53.2	35.5	45.4	45.4	45.8	44.6	50.0	34.4
	33	52.7	52.7	52.6	52.6	56.2	44.5	50.4	50.4	50.4	50.4	53.3	43.4	48.0	48.0	47.9	47.9	50.2	42.3
10194	24	46.5	42.7	51.2	33.3	56.5	21.1	44.0	41.5	48.5	32.2	53.6	20.1	41.4	40.4	45.6	31.1	50.4	19.0
	27	48.3	48.3	51.3	40.4	56.6	29.6	46.1	46.1	48.6	39.3	53.7	28.5	43.7	43.7	45.7	38.1	50.5	27.4
	30	51.1	51.1	51.9	49.1	56.7	38.1	48.8	48.8	49.3	48.0	53.7	37.0	46.4	46.4	46.3	46.3	50.5	35.9
	33	53.9	53.9	53.9	53.9	56.8	46.6	51.6	51.6	51.6	51.6	53.9	45.5	49.1	49.1	49.0	49.0	50.8	44.4

Airflow m^3/hr	Ent DB (°C)	Ambient Temperature (°C) 45						Ambient Temperature (°C) 52					
		Entering Wet Bulb (°C)						Entering Wet Bulb (°C)					
		16		19		22		16		19		22	
		kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC
7646	24	36.8	33.5	40.9	25.9	45.5	16.9	33.9	32.2	37.7	24.7	42.0	15.7
	27	38.2	38.2	41.0	31.9	45.6	23.5	35.6	35.6	37.8	30.6	42.1	22.3
	30	40.6	40.6	41.3	38.6	45.6	30.1	38.0	38.0	38.3	37.4	42.1	28.9
	33	42.9	42.9	42.9	42.9	45.7	36.8	40.2	40.2	40.2	40.2	42.2	35.5
8495	24	37.5	35.4	41.5	27.3	46.1	17.2	34.6	34.1	38.2	26.0	42.5	16.0
	27	39.3	39.3	41.6	33.6	46.1	24.4	36.7	36.7	38.3	32.3	42.6	23.2
	30	41.8	41.8	42.1	41.1	46.2	31.7	39.1	39.1	39.0	39.0	42.6	30.4
	33	44.2	44.2	44.2	44.2	46.3	39.0	41.4	41.4	41.4	41.4	42.8	37.7
9345	24	38.1	37.3	42.0	28.6	46.6	17.6	35.2	35.2	38.6	27.3	43.0	16.3
	27	40.3	40.3	42.1	35.2	46.6	25.3	37.6	37.6	38.8	33.9	43.0	24.1
	30	42.8	42.8	42.8	42.8	46.7	33.2	40.0	40.0	40.0	40.0	43.0	31.9
	33	45.3	45.3	45.3	45.3	46.9	41.1	42.4	42.4	42.4	42.4	43.4	39.8
10194	24	38.6	38.6	42.4	29.9	47.0	17.9	35.9	35.9	39.0	28.6	43.3	16.7
	27	41.2	41.2	42.6	36.9	47.1	26.2	38.4	38.4	39.3	35.6	43.3	24.9
	30	43.7	43.7	43.7	43.7	47.1	34.6	40.9	40.9	40.8	40.8	43.4	33.4
	33	46.3	46.3	46.3	46.3	47.5	43.2	43.3	43.3	43.3	43.3	43.9	41.9

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. kW = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 14. Gross cooling capacities (MBH) TWA201E heat pump with TWE201E air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F) 85						Ambient Temperature (°F) 95						Ambient Temperature (°F) 105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
6000	75	204.9	162.3	226.6	134.1	249.7	91.7	194.3	157.0	215.2	129.5	237.2	87.2	182.7	151.3	202.6	124.4	223.6	82.2
	80	206.0	190.4	226.9	155.1	249.9	119.8	195.9	185.3	215.5	150.0	237.4	114.8	185.0	179.8	202.9	144.4	223.8	109.5
	85	212.3	212.3	227.2	182.4	250.1	147.0	203.4	203.4	215.7	177.2	237.6	142.0	193.5	193.5	203.2	171.7	224.0	136.6
	90	223.0	223.0	228.5	210.1	250.4	174.2	213.9	213.9	217.6	205.1	237.9	169.1	203.8	203.8	205.7	199.8	224.2	163.6
6680	75	208.6	169.7	230.5	140.4	253.6	93.4	197.7	164.3	218.7	135.7	240.7	88.8	185.7	158.5	205.7	130.6	226.7	83.4
	80	210.5	200.4	230.8	161.8	253.8	123.4	200.3	195.3	219.0	156.5	241.0	118.4	188.7	188.7	206.0	150.9	226.9	113.0
	85	218.9	218.9	231.1	191.4	254.1	153.0	209.5	209.5	219.3	186.2	241.2	148.0	199.2	199.2	206.5	180.7	227.1	142.5
	90	230.0	230.0	233.3	221.8	254.3	182.5	220.4	220.4	222.3	216.8	241.4	177.3	209.8	209.8	209.7	209.7	227.4	171.8
7350	75	211.7	176.6	233.7	146.6	256.8	95.0	200.6	171.2	221.5	141.8	243.7	89.9	188.5	165.5	208.3	136.6	229.3	84.5
	80	214.7	210.0	234.0	168.1	257.1	126.9	203.8	203.8	221.9	162.8	243.9	121.8	193.4	193.4	208.6	157.1	229.6	116.4
	85	224.6	224.6	234.5	200.1	257.4	158.7	214.9	214.9	222.5	194.9	244.2	153.6	204.3	204.3	209.6	189.3	229.8	148.1
	90	236.1	236.1	235.9	235.9	257.7	190.4	226.1	226.1	226.0	226.0	244.4	185.3	215.1	215.1	215.2	215.2	230.0	179.7
8030	75	214.5	183.4	236.4	152.7	259.6	96.1	203.2	178.0	224.1	147.9	246.2	91.0	191.0	172.2	210.5	142.7	231.6	85.6
	80	218.0	218.0	236.8	174.2	259.9	130.2	208.3	208.3	224.4	168.8	246.5	125.1	197.5	197.5	210.9	163.1	231.8	119.6
	85	229.7	229.7	237.5	208.5	260.2	164.2	219.7	219.7	225.5	203.2	246.7	159.1	208.6	208.6	212.5	197.6	232.1	153.5
	90	241.5	241.5	241.3	241.3	260.5	198.1	231.1	231.1	231.0	231.0	247.0	192.9	219.8	219.8	219.6	219.6	232.3	187.3

CFM	Ent DB (°F)	Ambient Temperature (°F) 115						Ambient Temperature (°F) 125					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
6000	75	170.1	145.2	188.8	118.9	208.6	76.5	156.4	138.8	173.7	113.0	192.3	70.5
	80	172.8	172.8	189.1	138.4	208.8	103.8	161.1	161.1	174.0	132.0	192.5	97.7
	85	182.7	182.7	189.6	165.8	209.0	130.9	170.7	170.7	175.0	159.5	192.7	124.7
	90	192.6	192.6	192.4	192.4	209.2	157.8	180.3	180.3	180.1	180.1	192.9	151.6
6680	75	172.9	152.4	191.6	125.0	211.4	77.7	159.1	146.0	176.1	119.1	194.7	73.2
	80	177.7	177.7	191.8	144.9	211.6	107.2	165.6	165.6	176.4	138.4	194.9	101.1
	85	187.9	187.9	192.8	174.8	211.8	136.7	175.5	175.5	178.1	168.5	195.1	130.5
	90	198.1	198.1	198.0	198.0	212.0	166.0	185.3	185.3	185.1	185.1	195.4	159.8
7350	75	175.5	159.4	193.9	131.1	213.7	80.4	161.5	152.9	178.1	125.1	196.7	74.8
	80	182.0	182.0	194.2	151.0	213.9	110.5	169.4	169.4	178.4	144.5	196.9	104.3
	85	192.5	192.5	195.8	183.4	214.1	142.3	179.6	179.6	179.4	179.4	197.1	136.0
	90	203.0	203.0	202.9	202.9	214.4	173.8	189.6	189.6	189.5	189.5	197.6	167.6
8030	75	177.9	166.1	195.8	137.1	215.6	82.0	163.8	159.6	179.8	131.1	198.4	76.3
	80	185.7	185.7	196.1	156.9	215.9	113.7	172.8	172.8	180.2	150.5	198.6	107.5
	85	196.5	196.5	198.5	191.8	216.1	147.6	183.2	183.2	183.0	183.0	198.8	141.3
	90	207.2	207.2	207.1	207.1	216.6	181.4	193.4	193.4	193.4	193.4	199.6	175.3

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 15. Gross cooling capacities (kW) TWA201E heat pump with TWE201E air handler (SI)

Airflow m^3/hr	Ent DB (°C)	Ambient Temperature (°C) 30						Ambient Temperature (°C) 35						Ambient Temperature (°C) 40					
		Entering Wet Bulb (°C)						Entering Wet Bulb (°C)						Entering Wet Bulb (°C)					
		16		19		22		16		19		22		16		19		22	
		kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC
10194	24	60.1	47.6	66.4	39.3	73.2	26.9	57.0	46.0	63.1	37.9	69.5	25.6	53.5	44.3	59.4	36.4	65.5	24.1
	27	60.4	55.8	66.5	45.5	73.2	35.1	57.4	54.3	63.2	43.9	69.6	33.7	54.2	52.7	59.5	42.3	65.6	32.1
	30	62.2	62.2	66.6	53.5	73.3	43.1	59.6	59.6	63.2	51.9	69.6	41.6	56.7	56.7	59.5	50.3	65.6	40.0
	33	65.4	65.4	67.0	61.6	73.4	51.0	62.7	62.7	63.8	60.1	69.7	49.6	59.7	59.7	60.3	58.6	65.7	48.0
11349	24	61.1	49.7	67.5	41.1	74.3	27.4	57.9	48.1	64.1	39.8	70.6	26.0	54.4	46.5	60.3	38.3	66.4	24.4
	27	61.7	58.7	67.6	47.4	74.4	36.2	58.7	57.2	64.2	45.9	70.6	34.7	55.3	55.3	60.4	44.2	66.5	33.1
	30	64.1	64.1	67.7	56.1	74.5	44.8	61.4	61.4	64.3	54.6	70.7	43.4	58.4	58.4	60.5	52.9	66.6	41.8
	33	67.4	67.4	68.4	65.0	74.5	53.5	64.6	64.6	65.1	63.5	70.8	52.0	61.5	61.5	61.5	61.5	66.6	50.4
12488	24	62.1	51.8	68.5	43.0	75.3	27.8	58.8	50.2	64.9	41.6	71.4	26.4	55.2	48.5	61.0	40.0	67.2	24.8
	27	62.9	61.6	68.6	49.3	75.3	37.2	59.7	59.7	65.0	47.7	71.5	35.7	56.7	56.7	61.1	46.0	67.3	34.1
	30	65.8	65.8	68.7	58.7	75.4	46.5	63.0	63.0	65.2	57.1	71.6	45.0	59.9	59.9	61.4	55.5	67.3	43.4
	33	69.2	69.2	69.1	69.1	75.5	55.8	66.3	66.3	66.2	66.2	71.6	54.3	63.0	63.0	63.1	63.1	67.4	52.7
13643	24	62.9	53.7	69.3	44.8	76.1	28.2	59.6	52.2	65.7	43.3	72.2	26.7	56.0	50.5	61.7	41.8	67.9	25.1
	27	63.9	63.9	69.4	51.1	76.2	38.2	61.0	61.0	65.8	49.5	72.2	36.7	57.9	57.9	61.8	47.8	67.9	35.0
	30	67.3	67.3	69.6	61.1	76.2	48.1	64.4	64.4	66.1	59.6	72.3	46.6	61.1	61.1	62.3	57.9	68.0	45.0
	33	70.8	70.8	70.7	70.7	76.3	58.0	67.7	67.7	67.7	67.7	72.4	56.5	64.4	64.4	64.4	64.4	68.1	54.9

Airflow m^3/hr	Ent DB (°C)	Ambient Temperature (°C) 45						Ambient Temperature (°C) 52					
		Entering Wet Bulb (°C)						Entering Wet Bulb (°C)					
		16		19		22		16		19		22	
		kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC	kW	SHC
10194	24	49.8	42.6	55.3	34.8	61.1	22.4	45.8	40.7	50.9	33.1	56.4	20.7
	27	50.6	50.6	55.4	40.6	61.2	30.4	47.2	47.2	51.0	38.7	56.4	28.6
	30	53.5	53.5	55.6	48.6	61.3	38.4	50.0	50.0	51.3	46.7	56.5	36.5
	33	56.4	56.4	56.4	56.4	61.3	46.3	52.8	52.8	52.8	52.8	56.5	44.4
11349	24	50.7	44.7	56.1	36.6	62.0	22.8	46.6	42.8	51.6	34.9	57.1	21.5
	27	52.1	52.1	56.2	42.5	62.0	31.4	48.5	48.5	51.7	40.6	57.1	29.6
	30	55.1	55.1	56.5	51.2	62.1	40.1	51.4	51.4	52.2	49.4	57.2	38.2
	33	58.1	58.1	58.0	58.0	62.1	48.6	54.3	54.3	54.3	54.3	57.3	46.8
12488	24	51.4	46.7	56.8	38.4	62.6	23.6	47.3	44.8	52.2	36.7	57.6	21.9
	27	53.3	53.3	56.9	44.3	62.7	32.4	49.7	49.7	52.3	42.4	57.7	30.6
	30	56.4	56.4	57.4	53.8	62.8	41.7	52.6	52.6	52.6	52.6	57.8	39.9
	33	59.5	59.5	59.5	59.5	62.8	50.9	55.6	55.6	55.5	55.5	57.9	49.1
13643	24	52.1	48.7	57.4	40.2	63.2	24.0	48.0	46.8	52.7	38.4	58.1	22.4
	27	54.4	54.4	57.5	46.0	63.3	33.3	50.6	50.6	52.8	44.1	58.2	31.5
	30	57.6	57.6	58.2	56.2	63.3	43.3	53.7	53.7	53.6	53.6	58.3	41.4
	33	60.7	60.7	60.7	60.7	63.5	53.2	56.7	56.7	56.7	56.7	58.5	51.4

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. kW = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 16. Gross cooling capacities (MBH) TTA061D condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	242.4	256.2	263.0	270.2	277.6	285.4
	Capacity (Btuh/1000)	54.6	60.5	66.8	73.4	80.2	87.2
	Unit Power (kW)	3.2	3.3	3.3	3.4	3.5	3.6
75	Head Press (psig)	286.8	293.6	300.7	308.2	316.0	324.0
	Capacity (Btuh/1000)	51.3	57.1	63.1	69.3	75.7	82.4
	Unit Power (kW)	3.5	3.6	3.7	3.8	3.8	3.9
85	Head Press (psig)	327.2	334.3	341.8	349.6	357.7	366.1
	Capacity (Btuh/1000)	48.0	53.4	59.1	65.0	71.1	77.4
	Unit Power (kW)	3.9	4.0	4.1	4.2	4.3	4.3
95	Head Press (psig)	371.0	378.5	386.3	394.5	402.9	411.5
	Capacity (Btuh/1000)	44.3	49.4	54.9	60.5	66.2	72.2
	Unit Power (kW)	4.4	4.5	4.5	4.6	4.7	4.8
105	Head Press (psig)	418.3	426.2	434.4	442.9	451.6	460.6
	Capacity (Btuh/1000)	40.5	45.3	50.4	55.7	61.2	66.8
	Unit Power (kW)	4.9	5.0	5.0	5.1	5.2	5.3
115	Head Press (psig)	469.2	477.6	486.1	495.0	504.0	513.1
	Capacity (Btuh/1000)	36.4	41.0	45.8	50.8	56.0	61.2
	Unit Power (kW)	5.4	5.5	5.6	5.7	5.8	5.9
125	Head Press (psig)	523.8	532.6	541.4	550.5	559.7	568.9
	Capacity (Btuh/1000)	32.1	36.4	40.9	45.6	50.4	55.3
	Unit Power (kW)	6.0	6.1	6.2	6.3	6.4	6.5

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Table 17. Gross cooling capacities (kW) TTA061D condensing unit only (SI)

Outdoor Temp (°C)		Suction Temperature (°C)					
		-1.1	1.7	4.4	7.2	10	12.8
18.3	Head Press (kPa)	1671.6	1766.2	1813.2	1862.6	1914.1	1968.1
	Capacity (kW)	16.0	17.7	19.6	21.5	23.5	25.6
	Unit Power (kW)	3.2	3.3	3.3	3.4	3.5	3.6
23.9	Head Press (kPa)	1977.3	2024.1	2073.3	2124.8	2178.4	2234.2
	Capacity (kW)	15.0	16.7	18.5	20.3	22.2	24.1
	Unit Power (kW)	3.5	3.6	3.7	3.8	3.8	3.9
29.4	Head Press (kPa)	2255.9	2305.1	2356.7	2410.4	2466.2	2523.9
	Capacity (kW)	14.1	15.6	17.3	19.0	20.8	22.7
	Unit Power (kW)	3.9	4.0	4.1	4.2	4.3	4.3
35	Head Press (kPa)	2558.1	2609.7	2663.8	2719.8	2777.6	2837.2
	Capacity (kW)	13.0	14.5	16.1	17.7	19.4	21.1
	Unit Power (kW)	4.4	4.5	4.5	4.6	4.7	4.8
40.6	Head Press (kPa)	2884.1	2938.5	2995.1	3053.7	3113.9	3175.5
	Capacity (kW)	11.9	13.3	14.8	16.3	17.9	19.6
	Unit Power (kW)	4.9	5.0	5.0	5.1	5.2	5.3
46.1	Head Press (kPa)	3235.3	3293.0	3351.9	3412.7	3474.8	3537.8
	Capacity (kW)	10.7	12.0	13.4	14.9	16.4	17.9
	Unit Power (kW)	5.4	5.5	5.6	5.7	5.8	5.9
51.7	Head Press (kPa)	3611.2	3671.9	3733.0	3795.4	3858.8	3922.6
	Capacity (kW)	9.4	10.7	12.0	13.4	14.8	16.2
	Unit Power (kW)	6.0	6.1	6.2	6.3	6.4	6.5

Note: Performance data calculated at 8.3°C subcooling and 8.3°C superheat and does not include capacity loss due to refrigerant lines.

Table 18. Gross cooling capacities (MBH) TTA076D condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	256.4	273.4	281.6	290.3	299.4	309.0
	Capacity (Btuh/1000)	67.7	74.2	81.4	88.9	96.7	104.7
	Unit Power (kW)	3.9	4.1	4.2	4.3	4.5	4.6
75	Head Press (psig)	303.7	312.0	320.7	329.9	339.5	349.5
	Capacity (Btuh/1000)	63.5	70.1	77.0	84.2	91.6	99.3
	Unit Power (kW)	4.4	4.5	4.6	4.8	4.9	5.1
85	Head Press (psig)	345.3	354.1	363.3	372.9	383.0	393.4
	Capacity (Btuh/1000)	59.5	65.9	72.4	79.3	86.3	93.6
	Unit Power (kW)	4.9	5.0	5.2	5.3	5.5	5.6
95	Head Press (psig)	390.5	399.7	409.3	419.4	429.9	440.8
	Capacity (Btuh/1000)	55.4	61.4	67.6	74.1	80.8	87.7
	Unit Power (kW)	5.5	5.6	5.8	5.9	6.1	6.2
105	Head Press (psig)	439.3	449.0	459.1	469.6	480.5	491.8
	Capacity (Btuh/1000)	51.1	56.7	62.6	68.8	75.1	81.5
	Unit Power (kW)	6.2	6.3	6.5	6.6	6.8	6.9
115	Head Press (psig)	492.0	502.1	512.6	523.4	534.6	546.2
	Capacity (Btuh/1000)	46.6	51.9	57.4	63.1	69.0	75.1
	Unit Power (kW)	6.9	7.1	7.2	7.4	7.5	7.7
125	Head Press (psig)	548.5	558.9	569.6	580.7	592.0	603.5
	Capacity (Btuh/1000)	41.9	46.8	51.9	57.2	62.6	68.2
	Unit Power (kW)	7.7	7.9	8.0	8.2	8.3	8.4

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Table 19. Gross cooling capacities (kW) TTA076D condensing unit only (SI)

Outdoor Temp (°C)		Suction Temperature (°C)					
		-1.1	1.7	4.4	7.2	10	12.8
18.3	Head Press (kPa)	1767.6	1885.3	1941.9	2001.6	2064.4	2130.2
	Capacity (kW)	19.8	21.8	23.9	26.1	28.3	30.7
	Unit Power (kW)	3.9	4.1	4.2	4.3	4.5	4.6
23.9	Head Press (kPa)	2094.2	2151.2	2211.4	2274.6	2340.8	2409.8
	Capacity (kW)	18.6	20.6	22.6	24.7	26.9	29.1
	Unit Power (kW)	4.4	4.5	4.6	4.8	4.9	5.1
29.4	Head Press (kPa)	2380.9	2441.4	2504.9	2571.2	2640.5	2712.4
	Capacity (kW)	17.5	19.3	21.2	23.2	25.3	27.4
	Unit Power (kW)	4.9	5.0	5.2	5.3	5.5	5.6
35	Head Press (kPa)	2692.1	2755.9	2822.4	2891.6	2963.8	3039.0
	Capacity (kW)	16.2	18.0	19.8	21.7	23.7	25.7
	Unit Power (kW)	5.5	5.6	5.8	5.9	6.1	6.2
40.6	Head Press (kPa)	3028.8	3095.9	3165.5	3237.9	3312.9	3390.5
	Capacity (kW)	15.0	16.6	18.4	20.1	22.0	23.9
	Unit Power (kW)	6.2	6.3	6.5	6.6	6.8	6.9
46.1	Head Press (kPa)	3392.2	3462.1	3534.1	3608.9	3686.2	3765.7
	Capacity (kW)	13.7	15.2	16.8	18.5	20.2	22.0
	Unit Power (kW)	6.9	7.1	7.2	7.4	7.5	7.7
51.7	Head Press (kPa)	3781.7	3853.8	3927.6	4003.6	4081.6	4160.8
	Capacity (kW)	12.3	13.7	15.2	16.8	18.4	20.0
	Unit Power (kW)	7.7	7.9	8.0	8.2	8.3	8.4

Note: Performance data calculated at 8.3°C subcooling and 8.3°C superheat and does not include capacity loss due to refrigerant lines.

Table 20. Gross cooling capacities (MBH) TTA086D condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	249.7	256.7	264.1	271.8	279.9	288.4
	Capacity (Btuh/1000)	80.1	90.0	100.4	111.2	122.4	134.1
	Unit Power (kW)	5.8	5.9	6.1	6.2	6.4	6.6
75	Head Press (psig)	286.8	294.0	301.6	309.5	317.9	326.5
	Capacity (Btuh/1000)	76.2	85.5	95.3	105.5	116.1	127.0
	Unit Power (kW)	6.2	6.4	6.5	6.7	6.9	7.1
85	Head Press (psig)	327.3	334.7	342.5	350.7	359.2	368.0
	Capacity (Btuh/1000)	72.0	80.7	89.9	99.5	109.4	119.5
	Unit Power (kW)	6.8	6.9	7.1	7.3	7.4	7.6
95	Head Press (psig)	371.5	379.1	387.0	395.3	403.8	412.7
	Capacity (Btuh/1000)	67.5	75.6	84.1	93.0	102.2	111.6
	Unit Power (kW)	7.4	7.5	7.7	7.9	8.1	8.3
105	Head Press (psig)	419.3	427.1	435.1	443.5	452.2	461.1
	Capacity (Btuh/1000)	62.7	70.2	78.0	86.2	94.7	103.5
	Unit Power (kW)	8.1	8.2	8.4	8.6	8.8	9.0
115	Head Press (psig)	471.3	479.2	487.3	495.6	504.3	513.2
	Capacity (Btuh/1000)	57.7	64.5	71.7	79.1	86.9	94.9
	Unit Power (kW)	8.8	9.0	9.2	9.3	9.5	9.7
125	Head Press (psig)	527.4	535.3	543.4	551.7	560.3	569.1
	Capacity (Btuh/1000)	52.2	58.4	64.9	71.7	78.7	85.9
	Unit Power (kW)	9.7	9.8	10.0	10.2	10.3	10.5

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Table 21. Gross cooling capacities (kW) TTA086D condensing unit only (SI)

Outdoor Temp (°C)		Suction Temperature (°C)					
		-1.1	1.7	4.4	7.2	10	12.8
18.3	Head Press (kPa)	1721.9	1769.9	1820.6	1874.0	1929.8	1988.7
	Capacity (kW)	23.5	26.4	29.4	32.6	35.9	39.3
	Unit Power (kW)	5.8	5.9	6.1	6.2	6.4	6.6
23.9	Head Press (kPa)	1977.1	2026.8	2079.2	2134.1	2191.6	2251.4
	Capacity (kW)	22.3	25.1	27.9	30.9	34.0	37.2
	Unit Power (kW)	6.2	6.4	6.5	6.7	6.9	7.1
29.4	Head Press (kPa)	2256.6	2307.6	2361.6	2417.8	2476.3	2537.0
	Capacity (kW)	21.1	23.6	26.3	29.1	32.0	35.0
	Unit Power (kW)	6.8	6.9	7.1	7.3	7.4	7.6
35	Head Press (kPa)	2561.2	2613.5	2668.2	2725.2	2784.4	2845.5
	Capacity (kW)	19.8	22.2	24.6	27.3	30.0	32.7
	Unit Power (kW)	7.4	7.5	7.7	7.9	8.1	8.3
40.6	Head Press (kPa)	2891.2	2944.5	2999.9	3057.7	3117.6	3179.2
	Capacity (kW)	18.4	20.6	22.9	25.3	27.8	30.3
	Unit Power (kW)	8.1	8.2	8.4	8.6	8.8	9.0
46.1	Head Press (kPa)	3249.5	3303.8	3359.5	3417.0	3477.0	3538.3
	Capacity (kW)	16.9	18.9	21.0	23.2	25.5	27.8
	Unit Power (kW)	8.8	9.0	9.2	9.3	9.5	9.7
51.7	Head Press (kPa)	3636.2	3690.9	3746.6	3803.9	3863.1	3923.8
	Capacity (kW)	15.3	17.1	19.0	21.0	23.1	25.2
	Unit Power (kW)	9.7	9.8	10.0	10.2	10.3	10.5

Note: Performance data calculated at 8.3°C subcooling and 8.3°C superheat and does not include capacity loss due to refrigerant lines.

Table 22. Gross cooling capacities (MBH) TTA101D condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	251.4	258.1	265.0	272.3	279.9	287.8
	Capacity (Btuh/1000)	83.4	93.0	103.0	113.4	124.0	135.1
	Unit Power (kW)	5.1	5.2	5.3	5.4	5.6	5.7
75	Head Press (psig)	288.3	295.1	302.3	309.7	317.5	325.5
	Capacity (Btuh/1000)	79.1	88.0	97.4	107.2	117.2	127.5
	Unit Power (kW)	5.5	5.6	5.8	5.9	6.1	6.2
85	Head Press (psig)	328.5	335.6	343.0	350.6	358.6	366.8
	Capacity (Btuh/1000)	74.3	82.6	91.5	100.7	110.2	119.8
	Unit Power (kW)	6.1	6.2	6.4	6.5	6.7	6.8
95	Head Press (psig)	372.2	379.6	387.2	395.1	403.3	411.6
	Capacity (Btuh/1000)	69.0	77.0	85.3	94.0	102.9	112.0
	Unit Power (kW)	6.8	6.9	7.0	7.2	7.3	7.5
105	Head Press (psig)	419.4	427.2	435.1	443.4	451.8	460.4
	Capacity (Btuh/1000)	63.4	71.0	78.8	87.1	95.5	104.1
	Unit Power (kW)	7.5	7.7	7.8	7.9	8.1	8.2
115	Head Press (psig)	470.4	478.8	487.1	495.7	504.4	513.2
	Capacity (Btuh/1000)	57.4	64.7	72.2	79.9	87.9	95.9
	Unit Power (kW)	8.4	8.5	8.7	8.8	8.9	9.1
125	Head Press (psig)	525.4	534.3	543.2	552.1	561.0	570.1
	Capacity (Btuh/1000)	51.0	58.0	65.2	72.4	79.9	87.5
	Unit Power (kW)	9.4	9.5	9.6	9.7	9.9	10.0

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Table 23. Gross cooling capacities (kW) TTA101D condensing unit only (SI)

Outdoor Temp (°C)		Suction Temperature (°C)					
		-1.1	1.7	4.4	7.2	10	12.8
18.3	Head Press (kPa)	1733.4	1779.3	1827.4	1877.6	1929.7	1984.3
	Capacity (kW)	24.4	27.3	30.2	33.2	36.4	39.6
	Unit Power (kW)	5.1	5.2	5.3	5.4	5.6	5.7
23.9	Head Press (kPa)	1987.5	2034.7	2084.0	2135.4	2188.9	2244.3
	Capacity (kW)	23.2	25.8	28.6	31.4	34.4	37.4
	Unit Power (kW)	5.5	5.6	5.8	5.9	6.1	6.2
29.4	Head Press (kPa)	2264.9	2313.6	2364.6	2417.6	2472.3	2528.8
	Capacity (kW)	21.8	24.2	26.8	29.5	32.3	35.1
	Unit Power (kW)	6.1	6.2	6.4	6.5	6.7	6.8
35	Head Press (kPa)	2566.2	2617.0	2669.7	2724.3	2780.5	2838.0
	Capacity (kW)	20.2	22.6	25.0	27.6	30.2	32.8
	Unit Power (kW)	6.8	6.9	7.0	7.2	7.3	7.5
40.6	Head Press (kPa)	2891.5	2945.1	3000.2	3057.1	3115.2	3174.3
	Capacity (kW)	18.6	20.8	23.1	25.5	28.0	30.5
	Unit Power (kW)	7.5	7.7	7.8	7.9	8.1	8.2
46.1	Head Press (kPa)	3243.5	3300.9	3358.7	3417.4	3477.7	3538.1
	Capacity (kW)	16.8	19.0	21.2	23.4	25.8	28.1
	Unit Power (kW)	8.4	8.5	8.7	8.8	8.9	9.1
51.7	Head Press (kPa)	3622.2	3683.9	3745.0	3806.5	3868.0	3930.4
	Capacity (kW)	15.0	17.0	19.1	21.2	23.4	25.6
	Unit Power (kW)	9.4	9.5	9.6	9.7	9.9	10.0

Note: Performance data calculated at 8.3°C subcooling and 8.3°C superheat and does not include capacity loss due to refrigerant lines.

Table 24. Gross cooling capacities (MBH) TTA101E condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	248.3	255.0	262.0	269.1	276.4	284.0
	Capacity (Btuh/1000)	82.9	93.0	103.4	113.9	124.5	135.4
	Unit Power (kW)	4.9	5.0	5.1	5.1	5.2	5.3
75	Head Press (psig)	285.2	291.8	298.6	305.6	312.8	320.3
	Capacity (Btuh/1000)	78.6	87.5	96.9	106.4	116.2	126.2
	Unit Power (kW)	5.5	5.6	5.7	5.7	5.8	5.9
85	Head Press (psig)	325.0	331.5	338.4	345.5	352.8	360.3
	Capacity (Btuh/1000)	73.2	81.3	89.9	98.8	107.9	117.2
	Unit Power (kW)	6.2	6.3	6.4	6.4	6.5	6.5
95	Head Press (psig)	367.6	374.5	381.5	388.9	396.4	404.0
	Capacity (Btuh/1000)	66.9	74.6	82.6	91.0	99.6	108.4
	Unit Power (kW)	7.0	7.0	7.1	7.2	7.2	7.2
105	Head Press (psig)	413.2	420.6	428.1	435.8	443.8	451.8
	Capacity (Btuh/1000)	59.9	67.3	75.0	83.1	91.4	99.8
	Unit Power (kW)	7.8	7.8	7.9	8.0	8.0	8.1
115	Head Press (psig)	462.0	470.2	478.4	486.8	495.3	503.8
	Capacity (Btuh/1000)	52.3	59.6	67.2	75.0	83.1	91.2
	Unit Power (kW)	8.6	8.7	8.8	8.9	8.9	9.0
125	Head Press (psig)	514.0	523.3	532.5	541.7	550.9	560.1
	Capacity (Btuh/1000)	44.3	51.6	59.2	66.9	74.7	82.6
	Unit Power (kW)	9.5	9.6	9.7	9.8	9.9	9.9

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Table 25. Gross cooling capacities (kW) TTA101E condensing unit only (SI)

Outdoor Temp (°C)		Suction Temperature (°C)					
		-1.1	1.7	4.4	7.2	10	12.8
18.3	Head Press (kPa)	1711.6	1758.1	1806.1	1855.4	1905.7	1957.8
	Capacity (kW)	24.3	27.3	30.3	33.4	36.5	39.7
	Unit Power (kW)	4.9	5.0	5.1	5.1	5.2	5.3
23.9	Head Press (kPa)	1966.4	2011.6	2058.5	2107.0	2157.0	2208.3
	Capacity (kW)	23.0	25.7	28.4	31.2	34.1	37.0
	Unit Power (kW)	5.5	5.6	5.7	5.7	5.8	5.9
29.4	Head Press (kPa)	2240.6	2285.9	2333.3	2382.1	2432.5	2484.2
	Capacity (kW)	21.5	23.8	26.3	29.0	31.6	34.4
	Unit Power (kW)	6.2	6.3	6.4	6.4	6.5	6.5
35	Head Press (kPa)	2534.7	2581.9	2630.6	2681.2	2732.9	2785.7
	Capacity (kW)	19.6	21.9	24.2	26.7	29.2	31.8
	Unit Power (kW)	7.0	7.0	7.1	7.2	7.2	7.2
40.6	Head Press (kPa)	2849.0	2899.7	2951.5	3005.1	3059.8	3115.1
	Capacity (kW)	17.5	19.7	22.0	24.3	26.8	29.2
	Unit Power (kW)	7.8	7.8	7.9	8.0	8.0	8.1
46.1	Head Press (kPa)	3185.2	3241.7	3298.5	3356.2	3414.7	3473.6
	Capacity (kW)	15.3	17.5	19.7	22.0	24.3	26.7
	Unit Power (kW)	8.6	8.7	8.8	8.9	8.9	9.0
51.7	Head Press (kPa)	3544.2	3608.1	3671.5	3735.2	3798.1	3861.5
	Capacity (kW)	13.0	15.1	17.3	19.6	21.9	24.2
	Unit Power (kW)	9.5	9.6	9.7	9.8	9.9	9.9

Note: Performance data calculated at 8.3°C subcooling and 8.3°C superheat and does not include capacity loss due to refrigerant lines.

Table 26. Gross cooling capacities (MBH) one compressor - TTA101F condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	213.4	216.4	219.6	222.9	226.3	230.0
	Capacity (Btuh/1000)	39.4	44.5	49.9	55.7	61.6	68.0
	Unit Power (kW)	2.6	2.6	2.6	2.6	2.6	2.6
75	Head Press (psig)	247.9	251.0	254.2	257.6	261.1	264.8
	Capacity (Btuh/1000)	38.3	43.0	47.9	53.3	58.9	64.8
	Unit Power (kW)	2.8	2.8	2.8	2.8	2.8	2.8
85	Head Press (psig)	286.0	289.1	292.4	295.8	299.4	303.1
	Capacity (Btuh/1000)	36.6	41.0	45.7	50.6	55.9	61.4
	Unit Power (kW)	3.0	3.0	3.1	3.1	3.1	3.1
95	Head Press (psig)	327.7	330.9	334.2	337.7	341.3	345.1
	Capacity (Btuh/1000)	34.6	38.8	43.1	47.8	52.6	57.8
	Unit Power (kW)	3.4	3.4	3.4	3.4	3.5	3.5
105	Head Press (psig)	373.0	376.3	379.8	383.3	387.1	391.0
	Capacity (Btuh/1000)	32.2	36.1	40.3	44.7	49.2	54.0
	Unit Power (kW)	3.8	3.8	3.8	3.8	3.9	3.9
115	Head Press (psig)	422.3	425.7	429.3	433.0	436.9	440.8
	Capacity (Btuh/1000)	29.4	33.2	37.2	41.3	45.6	50.0
	Unit Power (kW)	4.3	4.3	4.3	4.3	4.3	4.4
125	Head Press (psig)	475.7	479.2	482.9	486.7	490.6	494.5
	Capacity (Btuh/1000)	26.4	30.0	33.8	37.7	41.7	45.8
	Unit Power (kW)	4.9	4.9	4.9	4.9	4.9	4.9

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Table 27. Gross cooling capacities (kW) one compressor - TTA101F condensing unit only (SI)

Outdoor Temp (°C)		Suction Temperature (°C)					
		-1.1	1.7	4.4	7.2	10	12.8
18.3	Head Press (kPa)	1471.4	1492.1	1513.9	1536.9	1560.4	1585.7
	Capacity (kW)	11.6	13.0	14.6	16.3	18.0	19.9
	Unit Power (kW)	2.6	2.6	2.6	2.6	2.6	2.6
23.9	Head Press (kPa)	1709.3	1730.3	1752.4	1775.9	1800.4	1825.9
	Capacity (kW)	11.2	12.6	14.0	15.6	17.3	19.0
	Unit Power (kW)	2.8	2.8	2.8	2.8	2.8	2.8
29.4	Head Press (kPa)	1972.0	1993.4	2016.0	2039.6	2064.5	2089.9
	Capacity (kW)	10.7	12.0	13.4	14.8	16.4	18.0
	Unit Power (kW)	3.0	3.0	3.1	3.1	3.1	3.1
35	Head Press (kPa)	2259.3	2281.3	2304.2	2328.1	2353.2	2379.4
	Capacity (kW)	10.1	11.4	12.6	14.0	15.4	16.9
	Unit Power (kW)	3.4	3.4	3.4	3.4	3.5	3.5
40.6	Head Press (kPa)	2572.0	2594.8	2618.5	2643.1	2668.7	2695.5
	Capacity (kW)	9.4	10.6	11.8	13.1	14.4	15.8
	Unit Power (kW)	3.8	3.8	3.8	3.8	3.9	3.9
46.1	Head Press (kPa)	2911.9	2935.4	2959.9	2985.5	3012.0	3039.0
	Capacity (kW)	8.6	9.7	10.9	12.1	13.4	14.7
	Unit Power (kW)	4.3	4.3	4.3	4.3	4.3	4.4
51.7	Head Press (kPa)	3279.7	3304.3	3329.7	3355.7	3382.3	3409.2
	Capacity (kW)	7.7	8.8	9.9	11.0	12.2	13.4
	Unit Power (kW)	4.9	4.9	4.9	4.9	4.9	4.9

Note: Performance data calculated at 8.3°C subcooling and 8.3°C superheat and does not include capacity loss due to refrigerant lines.

Table 28. Gross cooling capacities (MBH) both compressors - TTA101F condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	250.5	256.7	263.2	270.0	277.1	284.5
	Capacity (Btuh/1000)	85.2	94.3	103.8	113.7	124.0	134.5
	Unit Power (kW)	4.9	5.0	5.0	5.1	5.2	5.3
75	Head Press (psig)	287.6	293.9	300.6	307.5	314.7	322.2
	Capacity (Btuh/1000)	81.7	90.2	99.0	108.3	117.8	127.7
	Unit Power (kW)	5.4	5.5	5.6	5.7	5.8	5.9
85	Head Press (psig)	327.9	334.4	341.2	348.3	355.7	363.3
	Capacity (Btuh/1000)	77.4	85.4	93.7	102.4	111.3	120.5
	Unit Power (kW)	6.1	6.2	6.3	6.4	6.5	6.7
95	Head Press (psig)	371.4	378.2	385.2	392.5	400.1	407.8
	Capacity (Btuh/1000)	72.5	80.0	87.8	96.0	104.4	113.1
	Unit Power (kW)	6.9	7.0	7.1	7.2	7.3	7.5
105	Head Press (psig)	418.2	425.3	432.6	440.2	448.0	456.0
	Capacity (Btuh/1000)	66.9	74.1	81.5	89.3	97.3	105.4
	Unit Power (kW)	7.9	8.0	8.0	8.1	8.3	8.4
115	Head Press (psig)	468.4	476.0	483.7	491.5	499.5	507.7
	Capacity (Btuh/1000)	60.8	67.7	74.8	82.2	89.7	97.4
	Unit Power (kW)	9.0	9.0	9.1	9.2	9.3	9.4
125	Head Press (psig)	522.0	530.1	538.1	546.3	554.5	562.8
	Capacity (Btuh/1000)	54.3	60.9	67.7	74.7	81.8	89.0
	Unit Power (kW)	10.2	10.3	10.3	10.3	10.4	10.4

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Table 29. Gross cooling capacities (kW) both compressors - TTA101F condensing unit only (SI)

Outdoor Temp (°C)		Suction Temperature (°C)					
		-1.1	1.7	4.4	7.2	10	12.8
18.3	Head Press (kPa)	1727.0	1769.9	1814.9	1861.9	1910.8	1961.7
	Capacity (kW)	25.0	27.6	30.4	33.3	36.3	39.4
	Unit Power (kW)	4.9	5.0	5.0	5.1	5.2	5.3
23.9	Head Press (kPa)	1982.8	2026.5	2072.3	2120.1	2169.9	2221.6
	Capacity (kW)	23.9	26.4	29.0	31.7	34.5	37.4
	Unit Power (kW)	5.4	5.5	5.6	5.7	5.8	5.9
29.4	Head Press (kPa)	2260.6	2305.6	2352.6	2401.6	2452.4	2505.1
	Capacity (kW)	22.7	25.0	27.5	30.0	32.6	35.3
	Unit Power (kW)	6.1	6.2	6.3	6.4	6.5	6.7
35	Head Press (kPa)	2560.9	2607.6	2656.0	2706.3	2758.4	2812.0
	Capacity (kW)	21.2	23.4	25.7	28.1	30.6	33.2
	Unit Power (kW)	6.9	7.0	7.1	7.2	7.3	7.5
40.6	Head Press (kPa)	2883.4	2932.3	2982.9	3035.1	3088.8	3143.9
	Capacity (kW)	19.6	21.7	23.9	26.2	28.5	30.9
	Unit Power (kW)	7.9	8.0	8.0	8.1	8.3	8.4
46.1	Head Press (kPa)	3229.8	3281.7	3334.7	3388.9	3444.2	3500.4
	Capacity (kW)	17.8	19.8	21.9	24.1	26.3	28.6
	Unit Power (kW)	9.0	9.0	9.1	9.2	9.3	9.4
51.7	Head Press (kPa)	3599.2	3654.6	3710.1	3766.5	3823.4	3880.6
	Capacity (kW)	15.9	17.8	19.8	21.9	24.0	26.1
	Unit Power (kW)	10.2	10.3	10.3	10.3	10.4	10.4

Note: Performance data calculated at 8.3°C subcooling and 8.3°C superheat and does not include capacity loss due to refrigerant lines.

Table 30. Gross cooling capacities (MBH) TTA126E condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	264.6	272.2	280.2	288.6	297.3	306.5
	Capacity (Btuh/1000)	108.1	119.8	132.1	144.7	157.8	171.2
	Unit Power (kW)	6.7	6.9	7.0	7.2	7.4	7.5
75	Head Press (psig)	302.2	310.1	318.4	327.1	336.2	345.6
	Capacity (Btuh/1000)	101.9	113.0	124.6	136.6	148.9	161.5
	Unit Power (kW)	7.4	7.6	7.7	7.9	8.1	8.3
85	Head Press (psig)	343.2	351.4	360.0	369.0	378.3	387.9
	Capacity (Btuh/1000)	95.1	105.7	116.7	128.0	139.7	151.5
	Unit Power (kW)	8.2	8.4	8.6	8.7	8.9	9.1
95	Head Press (psig)	387.4	396.0	405.0	414.2	423.8	433.7
	Capacity (Btuh/1000)	87.9	97.9	108.3	119.0	130.0	141.2
	Unit Power (kW)	9.1	9.3	9.5	9.7	9.9	10.1
105	Head Press (psig)	435.1	444.2	453.6	463.2	473.1	483.3
	Capacity (Btuh/1000)	80.2	89.6	99.5	109.7	120.1	130.6
	Unit Power (kW)	10.1	10.3	10.5	10.7	10.9	11.1
115	Head Press (psig)	486.6	496.2	505.9	515.8	526.1	536.6
	Capacity (Btuh/1000)	72.2	81.1	90.4	100.0	109.8	119.7
	Unit Power (kW)	11.2	11.4	11.6	11.8	12.1	12.3
125	Head Press (psig)	541.9	552.0	562.1	572.5	582.9	593.5
	Capacity (Btuh/1000)	63.7	72.2	80.8	89.8	99.0	108.2
	Unit Power (kW)	12.4	12.7	12.9	13.1	13.3	13.5

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Table 31. Gross cooling capacities (kW) TTA126E condensing unit only (SI)

Outdoor Temp (°C)		Suction Temperature (°C)					
		-1.1	1.7	4.4	7.2	10	12.8
18.3	Head Press (kPa)	1824.4	1876.6	1931.8	1989.7	2050.0	2113.1
	Capacity (kW)	31.7	35.1	38.7	42.4	46.2	50.2
	Unit Power (kW)	6.7	6.9	7.0	7.2	7.4	7.5
23.9	Head Press (kPa)	2083.9	2138.3	2195.5	2255.4	2317.7	2382.6
	Capacity (kW)	29.9	33.1	36.5	40.0	43.6	47.3
	Unit Power (kW)	7.4	7.6	7.7	7.9	8.1	8.3
29.4	Head Press (kPa)	2366.0	2422.9	2482.3	2544.2	2608.3	2674.8
	Capacity (kW)	27.9	31.0	34.2	37.5	40.9	44.4
	Unit Power (kW)	8.2	8.4	8.6	8.7	8.9	9.1
35	Head Press (kPa)	2671.2	2730.5	2792.2	2856.1	2922.1	2990.3
	Capacity (kW)	25.8	28.7	31.7	34.9	38.1	41.4
	Unit Power (kW)	9.1	9.3	9.5	9.7	9.9	10.1
40.6	Head Press (kPa)	3000.2	3062.5	3127.1	3193.5	3262.1	3332.3
	Capacity (kW)	23.5	26.3	29.2	32.1	35.2	38.3
	Unit Power (kW)	10.1	10.3	10.5	10.7	10.9	11.1
46.1	Head Press (kPa)	3355.3	3420.9	3487.9	3556.5	3627.5	3699.7
	Capacity (kW)	21.2	23.8	26.5	29.3	32.2	35.1
	Unit Power (kW)	11.2	11.4	11.6	11.8	12.1	12.3
51.7	Head Press (kPa)	3736.5	3805.6	3875.3	3946.9	4018.9	4092.3
	Capacity (kW)	18.7	21.1	23.7	26.3	29.0	31.7
	Unit Power (kW)	12.4	12.7	12.9	13.1	13.3	13.5

Note: Performance data calculated at 8.3°C subcooling and 8.3°C superheat and does not include capacity loss due to refrigerant lines.

Table 32. Gross cooling capacities (MBH) TTA156E condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	234.2	239.1	244.2	249.6	255.3	261.2
	Capacity (Btuh/1000)	133.1	148.2	164.1	180.8	198.1	216.4
	Unit Power (kW)	7.9	8.1	8.3	8.5	8.7	8.9
75	Head Press (psig)	269.7	274.9	280.3	286.0	291.9	298.1
	Capacity (Btuh/1000)	125.3	139.6	155.0	171.1	187.9	205.4
	Unit Power (kW)	8.6	8.8	9.0	9.2	9.4	9.7
85	Head Press (psig)	308.7	314.1	319.8	325.8	332.0	338.5
	Capacity (Btuh/1000)	117.1	130.8	145.4	160.9	177.0	193.7
	Unit Power (kW)	9.5	9.7	9.9	10.1	10.3	10.6
95	Head Press (psig)	351.3	357.0	362.9	369.1	375.6	382.3
	Capacity (Btuh/1000)	108.4	121.5	135.3	150.0	165.4	181.3
	Unit Power (kW)	10.6	10.8	11.0	11.2	11.4	11.6
105	Head Press (psig)	397.6	403.5	409.6	416.0	422.7	429.5
	Capacity (Btuh/1000)	99.4	111.8	124.8	138.6	153.1	168.2
	Unit Power (kW)	11.8	12.0	12.2	12.4	12.6	12.8
115	Head Press (psig)	447.8	454.0	460.2	466.7	473.5	480.5
	Capacity (Btuh/1000)	90.0	101.6	113.8	126.7	140.2	154.4
	Unit Power (kW)	13.2	13.4	13.6	13.8	14.0	14.2
125	Head Press (psig)	502.0	508.2	514.5	521.1	527.9	535.0
	Capacity (Btuh/1000)	80.1	90.8	102.2	114.1	126.5	139.6
	Unit Power (kW)	14.7	14.9	15.1	15.3	15.4	15.6

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Table 33. Gross cooling capacities (kW) TTA156E condensing unit only (SI)

Outdoor Temp (°C)		Suction Temperature (°C)					
		-1.1	1.7	4.4	7.2	10	12.8
18.3	Head Press (kPa)	1615.1	1648.6	1683.8	1721.0	1760.1	1801.0
	Capacity (kW)	39.0	43.4	48.1	53.0	58.1	63.4
	Unit Power (kW)	7.9	8.1	8.3	8.5	8.7	8.9
23.9	Head Press (kPa)	1859.8	1895.1	1932.6	1971.7	2012.8	2055.7
	Capacity (kW)	36.7	40.9	45.4	50.2	55.1	60.2
	Unit Power (kW)	8.6	8.8	9.0	9.2	9.4	9.7
29.4	Head Press (kPa)	2128.5	2165.7	2205.0	2246.1	2289.0	2333.7
	Capacity (kW)	34.3	38.3	42.6	47.1	51.9	56.8
	Unit Power (kW)	9.5	9.7	9.9	10.1	10.3	10.6
35	Head Press (kPa)	2422.3	2461.3	2502.0	2545.0	2589.4	2635.6
	Capacity (kW)	31.8	35.6	39.6	44.0	48.5	53.1
	Unit Power (kW)	10.6	10.8	11.0	11.2	11.4	11.6
40.6	Head Press (kPa)	2741.6	2782.3	2824.3	2868.3	2914.1	2961.6
	Capacity (kW)	29.1	32.8	36.6	40.6	44.9	49.3
	Unit Power (kW)	11.8	12.0	12.2	12.4	12.6	12.8
46.1	Head Press (kPa)	3087.7	3129.9	3173.0	3217.9	3264.7	3313.3
	Capacity (kW)	26.4	29.8	33.4	37.1	41.1	45.2
	Unit Power (kW)	13.2	13.4	13.6	13.8	14.0	14.2
51.7	Head Press (kPa)	3461.2	3504.0	3547.6	3592.9	3639.7	3688.6
	Capacity (kW)	23.5	26.6	29.9	33.4	37.1	40.9
	Unit Power (kW)	14.7	14.9	15.1	15.3	15.4	15.6

Note: Performance data calculated at 8.3°C subcooling and 8.3°C superheat and does not include capacity loss due to refrigerant lines.

Table 34. Gross cooling capacities (MBH) one compressor - TTA156F condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	207.2	209.4	211.7	214.1	216.7	219.4
	Capacity (Btuh/1000)	66.2	73.7	81.7	90.1	98.9	108.2
	Unit Power (kW)	4.3	4.4	4.5	4.5	4.6	4.7
75	Head Press (psig)	241.0	243.4	245.9	248.5	251.2	254.1
	Capacity (Btuh/1000)	62.9	70.1	77.9	86.0	94.6	103.6
	Unit Power (kW)	4.6	4.7	4.8	4.8	4.9	5.0
85	Head Press (psig)	278.7	281.2	283.8	286.6	289.5	292.6
	Capacity (Btuh/1000)	59.4	66.3	73.8	81.7	89.9	98.5
	Unit Power (kW)	5.0	5.1	5.1	5.2	5.3	5.4
95	Head Press (psig)	320.2	322.8	325.6	328.6	331.6	334.8
	Capacity (Btuh/1000)	55.6	62.3	69.4	76.9	84.9	93.2
	Unit Power (kW)	5.5	5.6	5.6	5.7	5.8	5.8
105	Head Press (psig)	365.8	368.6	371.5	374.5	377.6	380.9
	Capacity (Btuh/1000)	51.7	58.0	64.8	71.9	79.5	87.3
	Unit Power (kW)	6.1	6.1	6.2	6.2	6.3	6.4
115	Head Press (psig)	415.7	418.6	421.5	424.6	427.8	431.2
	Capacity (Btuh/1000)	47.5	53.5	59.8	66.5	73.6	81.1
	Unit Power (kW)	6.7	6.8	6.8	6.9	6.9	7.0
125	Head Press (psig)	470.1	473.1	476.0	479.1	482.4	485.8
	Capacity (Btuh/1000)	43.1	48.6	54.6	60.8	67.3	74.3
	Unit Power (kW)	7.5	7.5	7.6	7.6	7.7	7.7

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Table 35. Gross cooling capacities (kW) one compressor - TTA156F condensing unit only (SI)

Outdoor Temp (°C)		Suction Temperature (°C)					
		-1.1	1.7	4.4	7.2	10	12.8
18.3	Head Press (kPa)	1428.2	1443.5	1459.5	1476.4	1494.3	1513.0
	Capacity (kW)	19.4	21.6	23.9	26.4	29.0	31.7
	Unit Power (kW)	4.3	4.4	4.5	4.5	4.6	4.7
23.9	Head Press (kPa)	1661.8	1678.0	1695.2	1713.3	1732.3	1752.2
	Capacity (kW)	18.4	20.5	22.8	25.2	27.7	30.3
	Unit Power (kW)	4.6	4.7	4.8	4.8	4.9	5.0
29.4	Head Press (kPa)	1921.4	1938.6	1956.9	1976.0	1996.1	2017.1
	Capacity (kW)	17.4	19.4	21.6	23.9	26.4	28.9
	Unit Power (kW)	5.0	5.1	5.1	5.2	5.3	5.4
35	Head Press (kPa)	2207.8	2226.0	2245.0	2265.3	2286.2	2308.2
	Capacity (kW)	16.3	18.3	20.3	22.5	24.9	27.3
	Unit Power (kW)	5.5	5.6	5.6	5.7	5.8	5.8
40.6	Head Press (kPa)	2522.1	2541.3	2561.1	2582.0	2603.8	2626.5
	Capacity (kW)	15.1	17.0	19.0	21.1	23.3	25.6
	Unit Power (kW)	6.1	6.1	6.2	6.2	6.3	6.4
46.1	Head Press (kPa)	2866.2	2885.9	2906.2	2927.4	2949.9	2973.1
	Capacity (kW)	13.9	15.7	17.5	19.5	21.6	23.8
	Unit Power (kW)	6.7	6.8	6.8	6.9	6.9	7.0
51.7	Head Press (kPa)	3241.5	3261.6	3282.1	3303.5	3326.0	3349.5
	Capacity (kW)	12.6	14.3	16.0	17.8	19.7	21.8
	Unit Power (kW)	7.5	7.5	7.6	7.6	7.7	7.7

Note: Performance data calculated at 8.3°C subcooling and 8.3°C superheat and does not include capacity loss due to refrigerant lines.

Table 36. Gross cooling capacities (MBH) both compressors - TTA156F condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	233.1	237.7	242.7	247.9	253.4	259.1
	Capacity (Btuh/1000)	136.7	150.9	165.8	181.5	197.9	215.0
	Unit Power (kW)	7.9	8.1	8.3	8.5	8.7	8.9
75	Head Press (psig)	268.4	273.4	278.6	284.1	289.8	295.8
	Capacity (Btuh/1000)	129.5	143.2	157.6	172.7	188.4	204.7
	Unit Power (kW)	8.6	8.8	9.0	9.2	9.4	9.6
85	Head Press (psig)	307.3	312.5	318.0	323.7	329.7	335.9
	Capacity (Btuh/1000)	121.9	135.0	148.8	163.2	178.1	193.7
	Unit Power (kW)	9.5	9.7	9.9	10.1	10.3	10.5
95	Head Press (psig)	349.8	355.2	360.9	366.8	373.0	379.4
	Capacity (Btuh/1000)	113.9	126.4	139.4	153.1	167.2	181.9
	Unit Power (kW)	10.6	10.8	11.0	11.2	11.4	11.6
105	Head Press (psig)	396.0	401.6	407.5	413.5	419.9	426.4
	Capacity (Btuh/1000)	105.4	117.2	129.5	142.3	155.6	169.3
	Unit Power (kW)	11.8	12.0	12.2	12.4	12.6	12.8
115	Head Press (psig)	446.0	451.8	457.8	463.9	470.3	476.9
	Capacity (Btuh/1000)	96.5	107.5	119.0	130.7	143.0	155.6
	Unit Power (kW)	13.2	13.4	13.5	13.7	13.9	14.1
125	Head Press (psig)	499.9	505.8	511.7	517.9	524.2	530.8
	Capacity (Btuh/1000)	87.0	97.0	107.4	118.3	129.5	141.0
	Unit Power (kW)	14.7	14.9	15.0	15.2	15.4	15.5

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Table 37. Gross cooling capacities (kW) both compressors - TTA156F condensing unit only (SI)

Outdoor Temp (°C)		Suction Temperature (°C)					
		-1.1	1.7	4.4	7.2	10	12.8
18.3	Head Press (kPa)	1607.0	1639.1	1673.2	1709.1	1746.9	1786.7
	Capacity (kW)	40.1	44.2	48.6	53.2	58.0	63.0
	Unit Power (kW)	7.9	8.1	8.3	8.5	8.7	8.9
23.9	Head Press (kPa)	1850.8	1884.9	1920.8	1958.6	1998.2	2039.6
	Capacity (kW)	38.0	42.0	46.2	50.6	55.2	60.0
	Unit Power (kW)	8.6	8.8	9.0	9.2	9.4	9.6
29.4	Head Press (kPa)	2118.8	2154.6	2192.2	2231.7	2272.9	2316.0
	Capacity (kW)	35.7	39.6	43.6	47.8	52.2	56.8
	Unit Power (kW)	9.5	9.7	9.9	10.1	10.3	10.5
35	Head Press (kPa)	2411.7	2449.2	2488.3	2529.2	2571.9	2616.2
	Capacity (kW)	33.4	37.0	40.9	44.9	49.0	53.3
	Unit Power (kW)	10.6	10.8	11.0	11.2	11.4	11.6
40.6	Head Press (kPa)	2730.2	2769.1	2809.3	2851.3	2894.9	2940.2
	Capacity (kW)	30.9	34.3	37.9	41.7	45.6	49.6
	Unit Power (kW)	11.8	12.0	12.2	12.4	12.6	12.8
46.1	Head Press (kPa)	3075.3	3115.3	3156.5	3198.3	3242.4	3287.9
	Capacity (kW)	28.3	31.5	34.9	38.3	41.9	45.6
	Unit Power (kW)	13.2	13.4	13.5	13.7	13.9	14.1
51.7	Head Press (kPa)	3447.0	3487.1	3528.0	3570.6	3614.6	3659.7
	Capacity (kW)	25.5	28.4	31.5	34.7	38.0	41.3
	Unit Power (kW)	14.7	14.9	15.0	15.2	15.4	15.5

Note: Performance data calculated at 8.3°C subcooling and 8.3°C superheat and does not include capacity loss due to refrigerant lines.

Table 38. Gross cooling capacities (MBH) TTA201E condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	262.8	270.4	278.4	286.9	295.8	305.0
	Capacity (Btuh/1000)	201.6	222.9	245.3	268.8	293.2	318.6
	Unit Power (kW)	12.7	13.0	13.3	13.6	14.0	14.3
75	Head Press (psig)	300.4	308.3	316.7	325.5	334.6	344.2
	Capacity (Btuh/1000)	191.2	211.4	232.6	254.8	277.9	301.8
	Unit Power (kW)	13.8	14.1	14.5	14.8	15.2	15.6
85	Head Press (psig)	341.4	349.7	358.4	367.4	376.9	386.6
	Capacity (Btuh/1000)	180.2	199.3	219.3	240.2	262.0	284.4
	Unit Power (kW)	15.1	15.4	15.8	16.2	16.6	17.0
95	Head Press (psig)	386.1	394.7	403.6	412.9	422.5	432.4
	Capacity (Btuh/1000)	168.6	186.6	205.4	225.0	245.3	266.3
	Unit Power (kW)	16.6	16.9	17.3	17.7	18.1	18.6
105	Head Press (psig)	434.5	443.3	452.5	462.0	471.8	481.9
	Capacity (Btuh/1000)	156.6	173.3	190.9	209.1	228.1	247.6
	Unit Power (kW)	18.2	18.6	19.0	19.4	19.8	20.3
115	Head Press (psig)	486.8	495.9	505.2	514.9	524.8	535.0
	Capacity (Btuh/1000)	144.0	159.5	175.7	192.6	210.1	228.0
	Unit Power (kW)	20.0	20.4	20.8	21.2	21.7	22.1
125	Head Press (psig)	543.1	552.4	561.8	571.5	581.4	591.5
	Capacity (Btuh/1000)	130.6	144.8	159.7	175.1	191.0	207.3
	Unit Power (kW)	22.0	22.4	22.8	23.2	23.6	24.0

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Table 39. Gross cooling capacities (kW) TTA201E condensing unit only (SI)

Outdoor Temp (°C)		Suction Temperature (°C)					
		-1.1	1.7	4.4	7.2	10	12.8
18.3	Head Press (kPa)	1811.8	1864.4	1919.8	1978.1	2039.3	2103.2
	Capacity (kW)	59.1	65.3	71.9	78.8	85.9	93.4
	Unit Power (kW)	12.7	13.0	13.3	13.6	14.0	14.3
23.9	Head Press (kPa)	2071.0	2125.8	2183.5	2244.0	2307.2	2373.0
	Capacity (kW)	56.0	61.9	68.2	74.7	81.5	88.5
	Unit Power (kW)	13.8	14.1	14.5	14.8	15.2	15.6
29.4	Head Press (kPa)	2354.2	2411.3	2471.1	2533.5	2598.3	2665.6
	Capacity (kW)	52.8	58.4	64.3	70.4	76.8	83.3
	Unit Power (kW)	15.1	15.4	15.8	16.2	16.6	17.0
35	Head Press (kPa)	2662.1	2721.2	2782.6	2846.5	2912.7	2981.3
	Capacity (kW)	49.4	54.7	60.2	65.9	71.9	78.0
	Unit Power (kW)	16.6	16.9	17.3	17.7	18.1	18.6
40.6	Head Press (kPa)	2995.4	3056.7	3119.9	3185.5	3253.1	3322.9
	Capacity (kW)	45.9	50.8	55.9	61.3	66.8	72.6
	Unit Power (kW)	18.2	18.6	19.0	19.4	19.8	20.3
46.1	Head Press (kPa)	3356.4	3419.2	3483.5	3549.9	3618.5	3688.9
	Capacity (kW)	42.2	46.7	51.5	56.4	61.6	66.8
	Unit Power (kW)	20.0	20.4	20.8	21.2	21.7	22.1
51.7	Head Press (kPa)	3744.5	3808.4	3873.4	3940.2	4008.5	4078.2
	Capacity (kW)	38.3	42.5	46.8	51.3	56.0	60.8
	Unit Power (kW)	22.0	22.4	22.8	23.2	23.6	24.0

Note: Performance data calculated at 8.3°C subcooling and 8.3°C superheat and does not include capacity loss due to refrigerant lines.

Table 40. Gross cooling capacities (MBH) one compressor - TTA201F condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	216.9	220.1	223.5	227.1	230.8	234.8
	Capacity (Btuh/1000)	101.3	112.3	124.0	136.3	149.3	162.8
	Unit Power (kW)	6.4	6.5	6.5	6.6	6.7	6.8
75	Head Press (psig)	251.3	254.7	258.3	262.0	266.0	270.1
	Capacity (Btuh/1000)	96.4	106.9	118.0	129.7	142.0	154.8
	Unit Power (kW)	6.8	6.9	7.0	7.1	7.2	7.2
85	Head Press (psig)	289.4	293.0	296.7	300.6	304.7	308.9
	Capacity (Btuh/1000)	91.1	101.0	111.5	122.6	134.2	146.3
	Unit Power (kW)	7.3	7.4	7.5	7.6	7.7	7.8
95	Head Press (psig)	331.3	335.0	338.8	342.8	347.0	351.3
	Capacity (Btuh/1000)	85.5	94.8	104.7	115.0	125.9	137.1
	Unit Power (kW)	8.0	8.1	8.2	8.3	8.4	8.5
105	Head Press (psig)	377.1	380.8	384.7	388.8	393.0	397.2
	Capacity (Btuh/1000)	79.4	88.1	97.3	106.9	117.0	127.2
	Unit Power (kW)	8.7	8.8	8.9	9.0	9.1	9.3
115	Head Press (psig)	426.7	430.4	434.2	438.1	442.1	446.3
	Capacity (Btuh/1000)	72.8	80.7	89.0	97.5	106.2	115.1
	Unit Power (kW)	9.5	9.6	9.7	9.9	10.0	10.1
125	Head Press (psig)	480.3	483.9	481.9	491.6	495.9	500.3
	Capacity (Btuh/1000)	64.9	71.8	78.3	85.5	93.9	102.7
	Unit Power (kW)	10.5	10.6	10.6	10.8	10.9	11.0

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Table 41. Gross cooling capacities (kW) one compressor - TTA201F condensing unit only (SI)

Outdoor Temp (°C)		Suction Temperature (°C)					
		-1.1	1.7	4.4	7.2	10	12.8
18.3	Head Press (kPa)	1530.0	1556.4	1584.2	1613.3	1644.0	1676.0
	Capacity (kW)	33.0	36.8	40.8	45.1	49.5	54.1
	Unit Power (kW)	6.7	6.8	6.9	7.0	7.1	7.2
23.9	Head Press (kPa)	1774.5	1801.6	1830.2	1860.1	1891.3	1923.7
	Capacity (kW)	31.7	35.2	39.0	42.9	47.0	51.2
	Unit Power (kW)	7.3	7.3	7.4	7.6	7.7	7.8
29.4	Head Press (kPa)	2043.2	2071.3	2100.6	2131.1	2162.9	2195.7
	Capacity (kW)	30.2	33.5	37.0	40.6	44.4	48.4
	Unit Power (kW)	7.9	8.0	8.1	8.2	8.3	8.4
35	Head Press (kPa)	2336.8	2366.0	2396.2	2427.5	2459.7	2492.9
	Capacity (kW)	28.4	31.5	34.8	38.2	41.8	45.4
	Unit Power (kW)	8.7	8.8	8.9	9.0	9.1	9.2
40.6	Head Press (kPa)	2655.8	2686.4	2717.6	2749.6	2782.4	2815.8
	Capacity (kW)	26.4	29.4	32.5	35.7	39.0	42.4
	Unit Power (kW)	9.6	9.7	9.8	9.9	10.0	10.1
46.1	Head Press (kPa)	3001.3	3033.7	3066.0	3099.0	3132.4	3166.1
	Capacity (kW)	24.3	27.1	30.0	33.1	36.2	39.3
	Unit Power (kW)	10.6	10.7	10.8	10.9	11.0	11.1
51.7	Head Press (kPa)	3374.9	3409.0	3442.4	3476.1	3509.8	3543.5
	Capacity (kW)	21.9	24.6	27.4	30.3	33.2	36.1
	Unit Power (kW)	11.8	11.9	12.0	12.1	12.2	12.2

Note: Performance data calculated at 8.3°C subcooling and 8.3°C superheat and does not include capacity loss due to refrigerant lines.

Table 42. Gross cooling capacities (MBH) both compressors - TTA201F condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	262.6	270.3	278.4	287.0	295.9	305.3
	Capacity (Btuh/1000)	200.9	222.2	244.6	268.0	292.4	317.6
	Unit Power (kW)	12.7	13.0	13.3	13.7	14.0	14.4
75	Head Press (psig)	299.7	307.7	316.0	324.9	334.1	343.7
	Capacity (Btuh/1000)	190.1	210.3	231.5	253.7	276.7	300.4
	Unit Power (kW)	13.8	14.1	14.5	14.9	15.2	15.6
85	Head Press (psig)	340.1	348.4	357.0	366.1	375.5	385.2
	Capacity (Btuh/1000)	178.8	197.9	217.8	238.7	260.2	282.5
	Unit Power (kW)	15.1	15.4	15.8	16.2	16.6	17.0
95	Head Press (psig)	384.1	392.5	401.4	410.6	420.1	430.0
	Capacity (Btuh/1000)	166.9	184.8	203.5	223.0	243.1	263.8
	Unit Power (kW)	16.5	16.9	17.3	17.7	18.1	18.5
105	Head Press (psig)	431.5	440.2	449.3	458.6	468.3	478.4
	Capacity (Btuh/1000)	154.5	171.2	188.6	206.7	225.4	244.6
	Unit Power (kW)	18.2	18.6	19.0	19.4	19.8	20.2
115	Head Press (psig)	482.8	491.6	500.8	510.2	520.0	530.1
	Capacity (Btuh/1000)	141.6	157.0	173.1	189.8	206.9	224.6
	Unit Power (kW)	20.0	20.4	20.8	21.2	21.6	22.0
125	Head Press (psig)	537.8	546.7	555.9	565.3	575.0	585.0
	Capacity (Btuh/1000)	128.0	142.0	156.7	171.9	187.5	203.4
	Unit Power (kW)	21.9	22.3	22.7	23.1	23.5	23.9

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Table 43. Gross cooling capacities (kW) both compressors - TTA201F condensing unit only (SI)

Outdoor Temp (°C)		Suction Temperature (°C)					
		-1.1	1.7	4.4	7.2	10	12.8
18.3	Head Press (kPa)	1810.7	1863.7	1919.7	1978.6	2040.4	2105.2
	Capacity (kW)	58.9	65.1	71.7	78.5	85.7	93.1
	Unit Power (kW)	12.7	13.0	13.3	13.7	14.0	14.4
23.9	Head Press (kPa)	2066.3	2121.2	2179.1	2239.8	2303.4	2369.7
	Capacity (kW)	55.7	61.6	67.9	74.3	81.1	88.0
	Unit Power (kW)	13.8	14.1	14.5	14.9	15.2	15.6
29.4	Head Press (kPa)	2345.2	2402.1	2461.7	2524.0	2588.8	2656.2
	Capacity (kW)	52.4	58.0	63.8	69.9	76.3	82.8
	Unit Power (kW)	15.1	15.4	15.8	16.2	16.6	17.0
35	Head Press (kPa)	2648.0	2706.4	2767.3	2830.8	2896.6	2964.7
	Capacity (kW)	48.9	54.2	59.7	65.4	71.3	77.3
	Unit Power (kW)	16.5	16.9	17.3	17.7	18.1	18.5
40.6	Head Press (kPa)	2975.2	3035.1	3097.5	3162.2	3229.1	3298.2
	Capacity (kW)	45.3	50.2	55.3	60.6	66.1	71.7
	Unit Power (kW)	18.2	18.6	19.0	19.4	19.8	20.2
46.1	Head Press (kPa)	3328.9	3389.7	3452.7	3517.9	3585.2	3654.7
	Capacity (kW)	41.5	46.0	50.7	55.6	60.7	65.8
	Unit Power (kW)	20.0	20.4	20.8	21.2	21.6	22.0
51.7	Head Press (kPa)	3708.0	3769.2	3832.5	3897.7	3964.7	4033.2
	Capacity (kW)	37.5	41.6	45.9	50.4	54.9	59.6
	Unit Power (kW)	21.9	22.3	22.7	23.1	23.5	23.9

Note: Performance data calculated at 8.3°C subcooling and 8.3°C superheat and does not include capacity loss due to refrigerant lines.

Table 44. Gross heating capacities (MBH) - TWA061D heat pump with TWE076D air handler at 2000 CFM (IP)

Outdoor Temp (°F)	Integrated Heating Capacity (MBH) at Indicated Indoor Dry Bulb Temp (°F)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°F)			
	60	70	75	80	60	70	75	80
-18	19.6	19.4	19.2	18.8	3.3	3.6	3.8	3.9
-13	21.0	20.9	20.6	20.2	3.3	3.6	3.8	4.0
-8	22.8	22.5	22.2	21.9	3.4	3.7	3.8	4.0
-3	24.8	24.4	24.1	23.7	3.4	3.7	3.9	4.1
2	26.9	26.5	26.1	25.7	3.4	3.7	3.9	4.1
7	29.3	28.7	28.4	27.9	3.5	3.8	4.0	4.2
12	31.8	31.1	30.6	30.2	3.5	3.9	4.0	4.2
17	34.5	33.6	33.1	32.6	3.6	3.9	4.1	4.3
22	37.3	36.3	35.7	35.1	3.6	4.0	4.2	4.4
27	40.3	39.1	38.5	37.8	3.7	4.0	4.2	4.4
32	43.4	42.0	41.3	40.5	3.8	4.1	4.3	4.5
37	51.6	49.8	48.9	48.0	3.8	4.2	4.4	4.6
42	55.0	53.0	52.0	51.0	3.9	4.3	4.5	4.7
47	58.6	56.4	55.3	54.4	4.0	4.4	4.6	4.8
52	62.3	60.2	59.1	58.0	4.1	4.5	4.7	4.9
57	66.4	64.1	63.0	61.8	4.2	4.6	4.8	5.0
62	70.7	68.2	66.9	65.6	4.3	4.7	4.9	5.1
67	75.0	72.2	70.7	69.3	4.4	4.8	5.0	5.2
72	79.0	76.0	74.5	72.9	4.5	4.9	5.1	5.4

Notes:

1. Net heating capacity and power include indoor fan heat at ARI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.
2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.

Table 45. Gross heating capacities (kW) TWA061D heat pump with TWE076D air handler at 2000 CFM (SI)

Outdoor Temp (°C)	Integrated Heating Capacity (kW) at Indicated Indoor Dry Bulb Temp (°C)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°C)			
	15	21	24	27	15	21	24	27
-28	5.7	5.7	5.6	5.5	3.3	3.6	3.8	3.9
-25	6.2	6.1	6.0	5.9	3.3	3.6	3.8	4.0
-22	6.7	6.6	6.5	6.4	3.4	3.7	3.8	4.0
-19	7.3	7.2	7.1	7.0	3.4	3.7	3.9	4.1
-17	7.9	7.8	7.7	7.5	3.4	3.7	3.9	4.1
-14	8.6	8.4	8.3	8.2	3.5	3.8	4.0	4.2
-11	9.3	9.1	9.0	8.8	3.5	3.9	4.0	4.2
-8	10.1	9.9	9.7	9.6	3.6	3.9	4.1	4.3
-6	10.9	10.6	10.5	10.3	3.6	4.0	4.2	4.4
-3	11.8	11.5	11.3	11.1	3.7	4.0	4.2	4.4
0	12.7	12.3	12.1	11.9	3.8	4.1	4.3	4.5
3	15.1	14.6	14.3	14.1	3.8	4.2	4.4	4.6
6	16.1	15.5	15.2	14.9	3.9	4.3	4.5	4.7
8	17.2	16.5	16.2	15.9	4.0	4.4	4.6	4.8
11	18.3	17.6	17.3	17.0	4.1	4.5	4.7	4.9
14	19.5	18.8	18.5	18.1	4.2	4.6	4.8	5.0
17	20.7	20.0	19.6	19.2	4.3	4.7	4.9	5.1
19	22.0	21.1	20.7	20.3	4.4	4.8	5.0	5.2
22	23.1	22.3	21.8	21.4	4.5	4.9	5.1	5.4

Notes:

1. Net heating capacity and power include indoor fan heat at ARI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.
2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.

Table 46. Gross heating capacities (MBH) TWA076D heat pump with TWE076D air handler at 2500 CFM (IP)

Outdoor Temp (°F)	Integrated Heating Capacity (MBH) at Indicated Indoor Dry Bulb Temp (°F)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°F)			
	60	70	75	80	60	70	75	80
-18	23.0	21.9	21.5	21.2	3.9	4.2	4.3	4.5
-13	24.6	23.7	23.3	23.0	3.9	4.2	4.4	4.6
-8	26.6	25.5	25.1	24.8	3.9	4.2	4.4	4.6
-3	28.7	27.7	27.3	26.9	4.0	4.3	4.5	4.7
2	31.1	30.0	29.6	29.3	4.0	4.3	4.5	4.7
7	33.8	32.6	32.2	31.8	4.0	4.4	4.6	4.8
12	36.6	35.4	34.9	34.5	4.1	4.4	4.7	4.9
17	39.7	38.5	37.9	37.4	4.1	4.5	4.7	5.0
22	43.0	41.6	41.0	40.5	4.2	4.6	4.8	5.1
27	46.4	45.0	44.3	43.7	4.3	4.7	4.9	5.2
32	50.1	48.5	47.7	47.0	4.4	4.8	5.0	5.3
37	59.6	57.7	56.8	55.9	4.5	4.9	5.1	5.4
42	63.7	61.6	60.6	59.6	4.6	5.0	5.2	5.5
47	67.9	65.6	64.7	63.8	4.7	5.1	5.4	5.6
52	72.5	70.4	69.3	68.3	4.8	5.2	5.5	5.8
57	77.6	75.3	74.2	73.1	4.9	5.4	5.7	5.9
62	82.9	80.4	79.1	77.8	5.1	5.6	5.8	6.1
67	88.1	85.3	83.9	82.5	5.2	5.7	6.0	6.3
72	92.9	90.2	88.7	87.2	5.4	5.9	6.1	6.4

Notes:

1. Net heating capacity and power include indoor fan heat at ARI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.
2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.

Table 47. Gross heating capacities (kW) TWA076D heat pump with TWE076D air handler at 2500 CFM (SI)

Outdoor Temp (°C)	Integrated Heating Capacity (kW) at Indicated Indoor Dry Bulb Temp (°C)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°C)			
	15	21	24	27	15	21	24	27
-28	6.7	6.4	6.3	6.2	3.9	4.2	4.3	4.5
-25	7.2	6.9	6.8	6.7	3.9	4.2	4.4	4.6
-22	7.8	7.5	7.4	7.3	3.9	4.2	4.4	4.6
-19	8.4	8.1	8.0	7.9	4.0	4.3	4.5	4.7
-17	9.1	8.8	8.7	8.6	4.0	4.3	4.5	4.7
-14	9.9	9.6	9.4	9.3	4.0	4.4	4.6	4.8
-11	10.7	10.4	10.2	10.1	4.1	4.4	4.7	4.9
-8	11.6	11.3	11.1	11.0	4.1	4.5	4.7	5.0
-6	12.6	12.2	12.0	11.9	4.2	4.6	4.8	5.1
-3	13.6	13.2	13.0	12.8	4.3	4.7	4.9	5.2
0	14.7	14.2	14.0	13.8	4.4	4.8	5.0	5.3
3	17.5	16.9	16.6	16.4	4.5	4.9	5.1	5.4
6	18.7	18.1	17.8	17.5	4.6	5.0	5.2	5.5
8	19.9	19.2	18.9	18.7	4.7	5.1	5.4	5.6
11	21.2	20.6	20.3	20.0	4.8	5.2	5.5	5.8
14	22.8	22.1	21.7	21.4	4.9	5.4	5.7	5.9
17	24.3	23.6	23.2	22.8	5.1	5.6	5.8	6.1
19	25.8	25.0	24.6	24.2	5.2	5.7	6.0	6.3
22	27.2	26.4	26.0	25.6	5.4	5.9	6.1	6.4

Notes:

1. Net heating capacity and power include indoor fan heat at ARI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.
2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.

Table 48. Gross heating capacities (MBH) TWA101D heat pump with TWE101D air handler at 3350 CFM (IP)

Outdoor Temp (°F)	Integrated Heating Capacity (MBH) at Indicated Indoor Dry Bulb Temp (°F)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°F)			
	60	70	75	80	60	70	75	80
-18	27.4	28.4	28.3	28.0	5.4	5.7	5.9	6.2
-13	29.9	30.7	30.6	30.2	5.4	5.7	6.0	6.2
-8	32.7	33.3	33.1	32.8	5.4	5.8	6.0	6.2
-3	35.9	36.2	36.0	35.6	5.5	5.8	6.0	6.3
2	39.2	39.2	38.9	38.5	5.5	5.8	6.1	6.4
7	42.8	42.6	42.2	41.7	5.5	5.9	6.1	6.4
12	46.8	46.3	45.8	45.2	5.6	6.0	6.2	6.5
17	51.0	50.2	49.6	49.0	5.6	6.0	6.3	6.6
22	55.5	54.4	53.7	52.9	5.7	6.1	6.4	6.7
27	60.2	58.7	57.9	57.1	5.7	6.2	6.5	6.8
32	65.0	63.2	62.3	61.3	5.8	6.3	6.6	6.9
37	77.4	75.1	73.9	72.7	5.9	6.4	6.7	7.0
42	82.6	80.0	78.6	77.3	6.0	6.5	6.8	7.1
47	88.1	85.1	83.7	82.2	6.1	6.6	6.9	7.2
52	93.7	90.9	89.4	88.0	6.2	6.8	7.1	7.4
57	100.3	97.0	95.4	93.8	6.4	6.9	7.2	7.6
62	106.9	103.3	101.5	99.7	6.5	7.1	7.4	7.8
67	113.0	109.2	107.3	105.4	6.7	7.3	7.6	8.0
72	119.1	115.0	113.0	110.9	6.9	7.5	7.8	8.1

Notes:

1. Net heating capacity and power include indoor fan heat at ARI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.

2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.

Table 49. Gross heating capacities (kW) TWA101D heat pump with TWE101D air handler at 3350 CFM (SI)

Outdoor Temp (°C)	Integrated Heating Capacity (kW) at Indicated Indoor Dry Bulb Temp (°C)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°C)			
	15	21	24	27	15	21	24	27
-28	8.0	8.3	8.3	8.2	5.4	5.7	5.9	6.2
-25	8.8	9.0	9.0	8.9	5.4	5.7	6.0	6.2
-22	9.6	9.8	9.7	9.6	5.4	5.8	6.0	6.2
-19	10.5	10.6	10.5	10.4	5.5	5.8	6.0	6.3
-17	11.5	11.5	11.4	11.3	5.5	5.8	6.1	6.4
-14	12.6	12.5	12.4	12.2	5.5	5.9	6.1	6.4
-11	13.7	13.6	13.4	13.2	5.6	6.0	6.2	6.5
-8	15.0	14.7	14.6	14.4	5.6	6.0	6.3	6.6
-6	16.3	15.9	15.7	15.5	5.7	6.1	6.4	6.7
-3	17.6	17.2	17.0	16.7	5.7	6.2	6.5	6.8
0	19.0	18.5	18.3	18.0	5.8	6.3	6.6	6.9
3	22.7	22.0	21.7	21.3	5.9	6.4	6.7	7.0
6	24.2	23.4	23.0	22.6	6.0	6.5	6.8	7.1
8	25.8	24.9	24.5	24.1	6.1	6.6	6.9	7.2
11	27.5	26.6	26.2	25.8	6.2	6.8	7.1	7.4
14	29.4	28.4	28.0	27.5	6.4	6.9	7.2	7.6
17	31.3	30.3	29.7	29.2	6.5	7.1	7.4	7.8
19	33.1	32.0	31.5	30.9	6.7	7.3	7.6	8.0
22	34.9	33.7	33.1	32.5	6.9	7.5	7.8	8.1

Notes:

1. Net heating capacity and power include indoor fan heat at ARI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.

2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.

Table 50. Gross heating capacities (MBH) TWA156E heat pump with TWE156E air handler at 5000 CFM (IP)

Outdoor Temp (°F)	Integrated Heating Capacity (MBH) at Indicated Indoor Dry Bulb Temp (°F)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°F)			
	60	70	75	80	60	70	75	80
-18	42.5	40.0	39.0	38.2	8.7	9.4	9.8	10.3
-13	46.6	44.0	43.0	42.2	8.8	9.5	9.9	10.4
-8	51.2	48.6	47.6	46.6	8.8	9.5	10.0	10.4
-3	56.5	53.8	52.7	51.7	8.9	9.6	10.0	10.5
2	62.4	59.6	58.4	57.2	8.9	9.7	10.1	10.6
7	68.8	65.8	64.5	63.3	9.0	9.8	10.2	10.7
12	75.6	72.5	71.0	69.6	9.1	9.9	10.4	10.9
17	82.7	79.3	77.7	76.1	9.2	10.0	10.5	11.0
22	89.9	86.1	84.3	82.5	9.4	10.2	10.7	11.2
27	97.3	93.1	91.1	89.1	9.6	10.4	10.9	11.4
32	104.9	100.2	97.9	95.6	9.8	10.6	11.1	11.6
37	124.8	119.0	116.1	113.2	9.9	10.8	11.3	11.8
42	133.1	126.7	123.5	120.6	10.2	11.0	11.5	12.1
47	141.8	135.2	132.2	129.2	10.4	11.3	11.8	12.4
52	151.0	144.6	141.3	138.0	10.7	11.6	12.1	12.7
57	161.1	154.1	150.5	146.9	11.0	11.9	12.5	13.0
62	171.3	163.7	159.8	155.9	11.3	12.3	12.8	13.3
67	181.5	173.4	169.2	165.1	11.6	12.6	13.1	13.7
72	191.7	182.9	178.5	174.0	11.9	12.9	13.5	14.0

Notes:

1. Net heating capacity and power include indoor fan heat at ARI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.
2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.

Table 51. Gross heating capacities (kW) TWA156E heat pump with TWE156E air handler at 5000 CFM (SI)

Outdoor Temp (°C)	Integrated Heating Capacity (kW) at Indicated Indoor Dry Bulb Temp (°C)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°C)			
	15	21	24	27	15	21	24	27
-28	12.5	11.7	11.4	11.2	8.7	9.4	9.8	10.3
-25	13.7	12.9	12.6	12.4	8.8	9.5	9.9	10.4
-22	15.0	14.3	13.9	13.7	8.8	9.5	10.0	10.4
-19	16.6	15.8	15.4	15.1	8.9	9.6	10.0	10.5
-17	18.3	17.5	17.1	16.8	8.9	9.7	10.1	10.6
-14	20.2	19.3	18.9	18.5	9.0	9.8	10.2	10.7
-11	22.2	21.2	20.8	20.4	9.1	9.9	10.4	10.9
-8	24.2	23.2	22.8	22.3	9.2	10.0	10.5	11.0
-6	26.4	25.2	24.7	24.2	9.4	10.2	10.7	11.2
-3	28.5	27.3	26.7	26.1	9.6	10.4	10.9	11.4
0	30.7	29.4	28.7	28.0	9.8	10.6	11.1	11.6
3	36.6	34.9	34.0	33.2	9.9	10.8	11.3	11.8
6	39.0	37.1	36.2	35.4	10.2	11.0	11.5	12.1
8	41.6	39.6	38.8	37.9	10.4	11.3	11.8	12.4
11	44.3	42.4	41.4	40.5	10.7	11.6	12.1	12.7
14	47.2	45.2	44.1	43.1	11.0	11.9	12.5	13.0
17	50.2	48.0	46.8	45.7	11.3	12.3	12.8	13.3
19	53.2	50.8	49.6	48.4	11.6	12.6	13.1	13.7
22	56.2	53.6	52.3	51.0	11.9	12.9	13.5	14.0

Notes:

1. Net heating capacity and power include indoor fan heat at ARI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.
2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.

Table 52. Gross heating capacities (MBH) TWA201E heat pump with TWE201E air handler at 6675 CFM (IP)

Outdoor Temp (°F)	Integrated Heating Capacity (MBH) at Indicated Indoor Dry Bulb Temp (°F)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°F)			
	60	70	75	80	60	70	75	80
-18	60.6	55.2	52.9	50.8	13.0	13.8	14.3	14.9
-13	66.7	61.5	59.3	57.3	13.0	13.9	14.4	15.0
-8	73.4	68.4	66.3	64.3	13.0	14.0	14.6	15.2
-3	80.8	75.9	73.8	71.8	13.1	14.1	14.7	15.4
2	88.6	83.9	81.8	79.7	13.2	14.3	14.9	15.6
7	96.9	92.1	89.9	87.9	13.4	14.5	15.1	15.8
12	105.9	100.9	98.6	96.4	13.5	14.7	15.4	16.1
17	115.3	110.1	107.7	105.3	13.8	15.0	15.6	16.4
22	125.1	119.7	117.1	114.5	14.0	15.2	15.9	16.7
27	135.3	129.5	126.7	123.9	14.2	15.5	16.3	17.0
32	146.0	139.7	136.5	133.5	14.5	15.8	16.6	17.4
37	173.7	166.2	162.5	158.7	14.8	16.2	16.9	17.7
42	185.4	177.3	173.6	169.7	15.1	16.5	17.3	18.1
47	197.8	189.7	185.6	181.5	15.5	16.9	17.7	18.6
52	211.3	202.6	198.4	194.1	15.9	17.4	18.2	19.0
57	225.3	216.4	211.8	207.3	16.4	17.9	18.7	19.5
62	240.3	230.7	225.7	220.8	16.9	18.4	19.2	20.1
67	254.8	244.5	239.2	233.9	17.3	18.9	19.7	20.6
72	267.7	257.6	252.1	246.5	17.8	19.3	20.2	21.0

Notes:

1. Net heating capacity and power include indoor fan heat at ARI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.
2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.

Table 53. Gross heating capacities (kW) TWA201E heat pump with TWE201E air handler at 6675 CFM (SI)

Outdoor Temp (°C)	Integrated Heating Capacity (kW) at Indicated Indoor Dry Bulb Temp (°C)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°C)			
	15	21	24	27	15	21	24	27
-28	17.8	16.2	15.5	14.9	13.0	13.8	14.3	14.9
-25	19.5	18.0	17.4	16.8	13.0	13.9	14.4	15.0
-22	21.5	20.1	19.4	18.8	13.0	14.0	14.6	15.2
-19	23.7	22.3	21.6	21.0	13.1	14.1	14.7	15.4
-17	26.0	24.6	24.0	23.4	13.2	14.3	14.9	15.6
-14	28.4	27.0	26.4	25.8	13.4	14.5	15.1	15.8
-11	31.0	29.6	28.9	28.3	13.5	14.7	15.4	16.1
-8	33.8	32.3	31.6	30.9	13.8	15.0	15.6	16.4
-6	36.7	35.1	34.3	33.6	14.0	15.2	15.9	16.7
-3	39.7	38.0	37.1	36.3	14.2	15.5	16.3	17.0
0	42.8	40.9	40.0	39.1	14.5	15.8	16.6	17.4
3	50.9	48.7	47.6	46.5	14.8	16.2	16.9	17.7
6	54.3	52.0	50.9	49.7	15.1	16.5	17.3	18.1
8	58.0	55.6	54.4	53.2	15.5	16.9	17.7	18.6
11	61.9	59.4	58.1	56.9	15.9	17.4	18.2	19.0
14	66.0	63.4	62.1	60.7	16.4	17.9	18.7	19.5
17	70.4	67.6	66.1	64.7	16.9	18.4	19.2	20.1
19	74.7	71.6	70.1	68.6	17.3	18.9	19.7	20.6
22	78.4	75.5	73.9	72.2	17.8	19.3	20.2	21.0

Notes:

1. Net heating capacity and power include indoor fan heat at ARI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.
2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.

Table 54. Evaporator fan performance — TWE051D — air handler (IP)

External Static Pressure (Inches of Water Gauge)																						
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"		1.10"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	0.5 HP Standard Motor																1 HP High Static Motor					
1400	612	0.20	674	0.24	731	0.29	786	0.34	840	0.39	891	0.45	941	0.51	989	0.58	1034	0.65	1077	0.72	1117	0.78
1500	647	0.24	705	0.29	760	0.34	812	0.39	863	0.44	912	0.50	960	0.56	1006	0.63	1051	0.70	1094	0.77	—	—
1600	683	0.28	738	0.33	790	0.38	840	0.44	888	0.50	936	0.56	980	0.62	1025	0.69	1070	0.76	1111	0.83	—	—
1700	719	0.33	771	0.38	821	0.44	869	0.50	914	0.56	959	0.62	1003	0.68	1047	0.75	1089	0.82	—	—	—	—
1800	756	0.39	804	0.44	853	0.50	898	0.56	942	0.62	985	0.69	1028	0.75	1068	0.82	1109	0.89	—	—	—	—
1900	792	0.45	838	0.51	884	0.57	928	0.63	971	0.69	1012	0.76	1052	0.83	1092	0.90	—	—	—	—	—	—
2000	829	0.52	873	0.58	917	0.64	959	0.71	1000	0.77	1040	0.84	1079	0.91	1117	0.98	—	—	—	—	—	—
2100	866	0.60	908	0.66	950	0.72	991	0.79	1030	0.86	1069	0.93	1106	1.00	1144	1.08	—	—	—	—	—	—

Notes:
1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (MBh) = 3.15 x BHP.
3. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full rsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 55. Evaporator fan performance — TWE051D — air handler (SI)

External Static Pressure (Inches of Water Gauge)																						
	25		50		75		100		125		150		174		199		224		249		274	
m^3/hr	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW
	0.38 kW Standard Motor																.75 kW High Static Motor					
2379	612	0.15	674	0.18	731	0.22	786	0.25	840	0.29	891	0.34	941	0.38	989	0.43	1034	0.48	1077	0.53	1117	0.58
2549	647	0.18	705	0.21	760	0.25	812	0.29	863	0.33	912	0.37	960	0.42	1006	0.47	1051	0.52	1094	0.58	—	—
2719	683	0.21	738	0.25	790	0.29	840	0.33	888	0.37	936	0.42	980	0.46	1025	0.51	1070	0.57	1111	0.62	—	—
2889	719	0.25	771	0.29	821	0.33	869	0.37	914	0.41	959	0.46	1003	0.51	1047	0.56	1089	0.61	—	—	—	—
3059	756	0.29	804	0.33	853	0.37	898	0.42	942	0.46	985	0.51	1028	0.56	1068	0.61	1109	0.66	—	—	—	—
3228	792	0.34	838	0.38	884	0.42	928	0.47	971	0.52	1012	0.57	1052	0.62	1092	0.67	—	—	—	—	—	—
3398	829	0.39	873	0.43	917	0.48	959	0.53	1000	0.58	1040	0.63	1079	0.68	1117	0.73	—	—	—	—	—	—
3568	866	0.45	908	0.49	950	0.54	991	0.59	1030	0.64	1069	0.69	1106	0.75	1144	0.80	—	—	—	—	—	—

Notes:
1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (kW) = 3.15 x kW.
3. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 56. Evaporator fan performance — TWE076D — air handler (IP)

External Static Pressure (Inches of Water Gauge)																						
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"		1.10"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
			1 HP Standard Motor						1.5 HP High Static Motor								2 HP Ultra High Static Motor					
2000	—	—	522	0.34	590	0.44	654	0.52	711	0.62	768	0.73	821	0.84	870	0.95	916	1.06	959	1.16	1001	1.27
2125	—	—	537	0.39	604	0.48	664	0.58	721	0.68	775	0.78	828	0.90	877	1.01	923	1.13	966	1.25	1009	1.36
2250	481	0.33	553	0.44	617	0.53	675	0.64	731	0.74	784	0.84	834	0.96	884	1.09	929	1.21	973	1.33	1016	1.46
2375	501	0.39	569	0.49	631	0.59	688	0.70	742	0.81	794	0.91	842	1.03	891	1.16	937	1.29	981	1.42	1022	1.55
2500	521	0.47	585	0.55	646	0.65	701	0.77	754	0.89	804	0.99	852	1.11	898	1.23	944	1.37	987	1.51	1028	1.64
2625	540	0.53	602	0.61	661	0.72	715	0.84	767	0.97	816	1.08	862	1.19	908	1.32	950	1.45	994	1.60	1036	1.74
2750	559	0.60	619	0.66	677	0.80	729	0.91	780	1.05	827	1.17	872	1.29	916	1.41	960	1.55	1001	1.69	1043	1.84
2875	579	0.67	636	0.72	692	0.88	744	1.00	793	1.13	840	1.27	885	1.40	928	1.52	969	1.65	1009	1.79	1049	1.94
3000	599	0.74	654	0.79	709	0.96	760	1.09	807	1.22	852	1.36	896	1.51	939	1.63	980	1.76	1019	1.90	1057	2.05

External Static Pressure (Inches of Water Gauge)												
	1.20"		1.30"		1.40"		1.50"		1.60"		1.70"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP Ultra High Static Motor											
2000	1040	1.38	1080	1.50	1116	1.61	—	—	—	—	—	—
2125	1048	1.48	1085	1.59	1123	1.71	—	—	—	—	—	—
2250	1054	1.58	1093	1.70	—	—	—	—	—	—	—	—
2375	1062	1.68	1099	1.80	—	—	—	—	—	—	—	—
2500	1068	1.78	1107	1.92	—	—	—	—	—	—	—	—
2625	1075	1.88	1113	2.02	—	—	—	—	—	—	—	—
2750	1083	1.99	—	—	—	—	—	—	—	—	—	—
2875	1090	2.10	—	—	—	—	—	—	—	—	—	—
3000	1097	2.21	—	—	—	—	—	—	—	—	—	—

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.

2. Fan motor heat (MBh) = 3.15 x BHP.

3. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 57. Evaporator fan performance — TWE076D — air handler (SI)

External Static Pressure (Inches of Water Gauge)																							
	25		50		75		100		125		150		174		199		224		249		274	
m³/hr	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW
	.75 kW Standard Motor								1.12 kW High Static Motor								1.5 kW Ultra High Static Motor					
3398	—	0.18	522	0.25	590	0.33	654	0.39	711	0.46	768	0.54	821	0.62	870	0.71	916	0.79	959	0.87	1001	0.95
3611	—	0.21	537	0.29	604	0.36	664	0.43	721	0.50	775	0.58	828	0.67	877	0.76	923	0.84	966	0.93	1009	1.02
3823	481	0.24	553	0.32	617	0.40	675	0.48	731	0.55	784	0.63	834	0.72	884	0.81	929	0.90	973	0.99	1016	1.09
4036	501	0.29	569	0.36	631	0.44	688	0.53	742	0.60	794	0.68	842	0.77	891	0.87	937	0.96	981	1.06	1022	1.15
4248	521	0.35	585	0.41	646	0.49	701	0.57	754	0.66	804	0.74	852	0.83	898	0.92	944	1.02	987	1.12	1028	1.22
4460	540	0.40	602	0.46	661	0.54	715	0.62	767	0.72	816	0.81	862	0.89	908	0.99	950	1.08	994	1.19	1036	1.30
4673	559	0.45	619	0.50	677	0.59	729	0.68	780	0.78	827	0.88	872	0.96	916	1.05	960	1.15	1001	1.26	1043	1.37
4885	579	0.50	636	0.54	692	0.65	744	0.74	793	0.84	840	0.95	885	1.04	928	1.13	969	1.23	1009	1.33	1049	1.45
5098	599	0.55	654	0.59	709	0.72	760	0.81	807	0.91	852	1.02	896	1.12	939	1.22	980	1.32	1019	1.42	1057	1.53

External Static Pressure (Inches of Water Gauge)						
	299		324		349	
m³/hr	RPM	kW	RPM	kW	RPM	kW
	1.5 kW Ultra High Static Motor					
3398	1040	1.03	1080	1.12	1116	1.20
3611	1048	1.10	1085	1.19	1123	1.28
3823	1054	1.18	1093	1.27	—	—
4036	1062	1.25	1099	1.35	—	—
4248	1068	1.33	1107	1.43	—	—
4460	1075	1.40	1113	1.51	—	—
4673	1083	1.49	—	—	—	—
4885	1090	1.57	—	—	—	—
5098	1097	1.65	—	—	—	—

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (kW) = 3.15 x kW.
3. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 58. Evaporator fan performance — TWE101D,E — air handler (IP)

External Static Pressure (Inches of Water Gauge)																						
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"		1.10"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	1.5 HP Standard Motor														2 HP High Static Motor							
2600	—	—	—	—	523	0.53	563	0.61	601	0.69	638	0.75	673	0.83	707	0.91	739	0.99	772	1.08	802	1.17
2775	—	—	499	0.55	541	0.62	580	0.69	617	0.78	653	0.86	687	0.93	719	1.01	750	1.09	782	1.18	812	1.27
2950	—	—	519	0.63	560	0.71	598	0.79	634	0.87	668	0.96	701	1.05	732	1.12	763	1.21	793	1.30	822	1.39
3125	499	0.70	540	0.71	579	0.82	616	0.90	651	0.98	684	1.08	716	1.17	747	1.26	777	1.34	805	1.42	834	1.52
3300	522	0.81	561	0.81	600	0.94	635	1.02	669	1.10	701	1.20	731	1.30	762	1.40	791	1.49	819	1.57	847	1.66
3475	545	0.93	582	0.93	620	1.07	654	1.15	687	1.24	718	1.33	748	1.43	777	1.54	806	1.65	834	1.74	860	1.83
3650	568	1.05	604	1.09	640	1.18	674	1.30	706	1.39	736	1.48	766	1.58	794	1.69	821	1.81	848	1.91	874	2.01
3825	592	1.19	628	1.27	661	1.30	694	1.46	725	1.55	754	1.65	783	1.75	810	1.85	838	1.98	864	2.09	890	2.20
4000	615	1.34	652	1.47	682	1.45	714	1.63	745	1.73	774	1.83	801	1.93	829	2.04	855	2.16	880	2.28	—	—

External Static Pressure (Inches of Water Gauge)																
	1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP High Static Motor w/ Field Supplied Sheave & Belt															
2600	832	1.25	860	1.34	887	1.43	914	1.52	939	1.6	964	1.69	988	1.77	1011	1.86
2775	841	1.37	870	1.46	897	1.56	923	1.65	949	1.74	973	1.83	997	1.93	1020	2.02
2950	851	1.49	879	1.59	906	1.69	932	1.79	958	1.89	983	1.99	1006	2.08	1030	2.18
3125	861	1.61	889	1.72	916	1.82	943	1.93	967	2.04	992	2.14	1016	2.25	1040	2.36
3300	873	1.76	900	1.86	926	1.97	951	2.08	977	2.19	1002	2.31	—	—	—	—
3475	886	1.92	912	2.02	938	2.13	962	2.24	—	—	—	—	—	—	—	—
3650	900	2.10	926	2.20	950	2.31	—	—	—	—	—	—	—	—	—	—
3825	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.

2. Fan motor heat (MBh) = 3.15 x BHP.

3. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 59. Evaporator fan performance — TWE101D,E — air handler (SI)

External Static Pressure (Inches of Water Gauge)																						
	25		50		75		100		125		150		174		199		224		249		274	
m^3/hr	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW
					1.12 kW Standard Motor										1.12 kW High Static Motor							
4418	—	—	—	—	523	0.40	563	0.45	601	0.51	638	0.56	673	0.62	707	0.68	739	0.74	772	0.80	802	0.87
4715	—	—	499	0.41	541	0.46	580	0.52	617	0.58	653	0.64	687	0.69	719	0.75	750	0.81	782	0.88	812	0.95
5013	—	—	519	0.47	560	0.53	598	0.59	634	0.65	668	0.72	701	0.78	732	0.84	763	0.90	793	0.97	822	1.03
5310	499	0.52	540	0.53	579	0.61	616	0.67	651	0.73	684	0.80	716	0.88	747	0.94	777	1.00	805	1.06	834	1.13
5607	522	0.60	561	0.60	600	0.70	635	0.76	669	0.82	701	0.89	731	0.97	762	1.04	791	1.11	819	1.17	847	1.24
5905	545	0.69	582	0.70	620	0.80	654	0.86	687	0.92	718	0.99	748	1.07	777	1.15	806	1.23	834	1.30	860	1.36
6202	568	0.79	604	0.81	640	0.88	674	0.97	706	1.03	736	1.10	766	1.18	794	1.26	821	1.35	848	1.43	874	1.50
6499	592	0.89	628	0.95	661	0.97	694	1.09	725	1.16	754	1.23	783	1.30	810	1.38	838	1.47	864	1.56	890	1.64
6797	615	1.00	652	1.10	682	1.08	714	1.22	745	1.29	774	1.36	801	1.44	829	1.52	855	1.61	880	1.70	905	1.79

External Static Pressure (Inches of Water Gauge)																
	299		324		349		374		398		423		448		473	
m^3/hr	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW
	1.12 kW High Static Motor w/ Field Supplied Sheave & Belt															
4418	832	0.93	860	1.00	887	1.06	914	1.13	939	1.19	964	1.26	988	1.32	1011	1.39
4715	841	1.02	870	1.09	897	1.16	923	1.23	949	1.30	973	1.37	997	1.44	1020	1.50
5013	851	1.11	879	1.18	906	1.26	932	1.33	958	1.41	983	1.48	1006	1.55	1030	1.63
5310	861	1.20	889	1.28	916	1.36	943	1.44	967	1.52	992	1.60	1016	1.68	1040	1.76
5607	873	1.31	900	1.39	926	1.47	951	1.55	977	1.63	1002	1.72	—	—	—	—
5905	886	1.43	912	1.51	938	1.59	962	1.67	986	1.75	—	—	—	—	—	—
6202	900	1.57	926	1.64	950	1.72	975	1.81	998	1.89	—	—	—	—	—	—
6499	915	1.72	939	1.79	963	1.87	987	1.95	1010	2.04	—	—	—	—	—	—
6797	929	1.88	953	1.96	977	2.03	1000	2.11	1023	2.20	—	—	—	—	—	—

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (kW) = 3.15 x kW.
3. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 60. Evaporator fan performance —TWE126E — air handler (IP)

	External Static Pressure (Inches of Water Gauge)																			
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"		1.10"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
					1.5 HP Standard Motor								1.5 HP Standard Motor w/ Field Supplied Sheave & Belt						2 HP High Static Motor			
3200	—	—	—	—	515	0.51	565	0.63	601	0.71	638	0.81	678	0.93	718	1.06	759	1.21	794	1.35	826	1.49
3400	—	—	472	0.46	528	0.57	578	0.69	617	0.80	650	0.89	686	1.00	724	1.13	762	1.27	800	1.42	834	1.57
3600	—	—	486	0.51	541	0.63	590	0.76	633	0.89	666	0.98	697	1.08	732	1.20	767	1.34	804	1.49	840	1.65
3800	—	—	500	0.57	554	0.70	601	0.82	646	0.97	682	1.09	712	1.19	742	1.29	776	1.43	810	1.57	843	1.72
4000	—	—	515	0.64	567	0.78	614	0.91	658	1.05	698	1.20	728	1.31	756	1.41	786	1.53	817	1.66	849	1.82
4200	477	0.58	531	0.71	581	0.85	627	1.00	669	1.13	710	1.29	744	1.43	772	1.55	799	1.65	827	1.78	858	1.93
4400	494	0.65	546	0.79	595	0.94	640	1.09	682	1.23	722	1.39	758	1.55	789	1.69	814	1.80	840	1.92	867	2.05
4600	513	0.73	563	0.87	609	1.03	653	1.19	695	1.34	732	1.48	771	1.66	804	1.83	831	1.96	856	2.08	880	2.20
4800	531	0.82	579	0.96	624	1.13	667	1.29	707	1.45	745	1.60	783	1.77	817	1.96	847	2.12	872	2.25	896	2.37

	External Static Pressure (Inches of Water Gauge)											
	1.20"		1.30"		1.40"		1.50"		1.60"		1.70"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP High Static Motor				3 HP Ultra High Static Motor							
3200	857	1.63	887	1.78	916	1.93	943	2.08	970	2.23	996	2.39
3400	865	1.72	895	1.88	924	2.03	952	2.19	978	2.35	1003	2.50
3600	873	1.81	903	1.97	931	2.13	959	2.29	986	2.46	1012	2.62
3800	877	1.89	912	2.08	940	2.24	967	2.41	994	2.58	—	—
4000	882	1.98	915	2.16	947	2.34	976	2.53	1002	2.70	—	—
4200	888	2.08	919	2.25	950	2.44	980	2.63	1010	2.82	—	—
4400	896	2.20	925	2.37	955	2.55	985	2.73	1013	2.92	—	—
4600	906	2.34	934	2.50	961	2.67	989	2.85	—	—	—	—
4800	918	2.50	944	2.65	970	2.81	996	2.98	—	—	—	—

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (MBh) = 3.15 x BHP.
3. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 61. Evaporator fan performance — TWE126E — air handler (SI)

External Static Pressure (Inches of Water Gauge)																						
	25		50		75		100		125		150		174		199		224		249		274	
m³/hr	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW
					1.12 kW Standard Motor								1.12 kW Standard Motor w/ Field Supplied Sheave & Belt						1.49 kW High Static Motor			
5437	—	—	—	—	515	0.38	565	0.47	601	0.53	638	0.60	678	0.69	718	0.79	759	0.90	794	1.01	826	1.11
5777	—	—	472	0.34	528	0.42	578	0.52	617	0.60	650	0.66	686	0.74	724	0.84	762	0.94	800	1.06	834	1.17
6117	—	—	486	0.38	541	0.47	590	0.56	633	0.66	666	0.73	697	0.81	732	0.90	767	1.00	804	1.11	840	1.23
6457	—	—	500	0.43	554	0.52	601	0.61	646	0.72	682	0.81	712	0.89	742	0.97	776	1.06	810	1.17	843	1.29
6797	—	—	515	0.48	567	0.58	614	0.68	658	0.78	698	0.89	728	0.98	756	1.05	786	1.14	817	1.24	849	1.35
7137	477	0.43	531	0.53	581	0.64	627	0.74	669	0.84	710	0.96	744	1.07	772	1.15	799	1.23	827	1.33	858	1.44
7476	494	0.48	546	0.59	595	0.70	640	0.81	682	0.92	722	1.03	758	1.16	789	1.26	814	1.34	840	1.43	867	1.53
7816	513	0.54	563	0.65	609	0.77	653	0.88	695	1.00	732	1.10	771	1.24	804	1.36	831	1.46	856	1.55	880	1.64
8156	531	0.61	579	0.72	624	0.84	667	0.96	707	1.08	745	1.19	783	1.32	817	1.46	847	1.58	872	1.68	896	1.77

External Static Pressure (Inches of Water Gauge)												
	299		324		349		374		398		423	
m³/hr	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW
	1.49 kW High Static Motor				2.24 kW Ultra High Static Motor							
5437	857	1.22	887	1.33	916	1.44	943	1.55	970	1.66	996	1.78
5777	865	1.29	895	1.40	924	1.51	952	1.63	978	1.75	1003	1.87
6117	873	1.35	903	1.47	931	1.59	959	1.71	986	1.83	1012	1.96
6457	877	1.41	912	1.55	940	1.67	967	1.80	994	1.92	—	—
6797	882	1.48	915	1.61	947	1.75	976	1.88	1002	2.01	—	—
7137	888	1.55	919	1.68	950	1.82	980	1.96	1010	2.11	—	—
7476	896	1.64	925	1.76	955	1.90	985	2.04	1013	2.18	—	—
7816	906	1.74	934	1.86	961	1.99	989	2.12	—	—	—	—
8156	918	1.86	944	1.97	970	2.10	996	2.22	—	—	—	—

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (kW) = 3.15 x kW.
3. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 62. Evaporator fan performance —TWE156E — air handler (IP)

	External Static Pressure (Inches of Water Gauge)																					
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"		1.10"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
					2 HP Standard Motor w/ Field Supplied Sheave & Belt								1.5 HP Standard Motor w/ Field Supplied Sheave & Belt						2 HP High Static Motor			
4000	428	0.5	482	0.62	531	0.72	576	0.84	621	0.98	663	1.11	701	1.25	737	1.38	771	1.51	803	1.64	833	1.77
4250	448	0.58	499	0.71	546	0.82	590	0.94	633	1.08	674	1.22	712	1.37	748	1.51	782	1.65	814	1.79	845	1.93
4500	468	0.68	517	0.81	563	0.93	605	1.05	646	1.19	686	1.34	724	1.50	760	1.65	793	1.80	825	1.95	855	2.09
4750	488	0.78	535	0.91	579	1.06	621	1.18	660	1.32	698	1.46	735	1.63	772	1.79	805	1.95	837	2.11	867	2.27
5000	509	0.90	554	1.03	596	1.19	637	1.32	675	1.46	712	1.61	748	1.77	783	1.94	817	2.11	848	2.28	878	2.44
5250	530	1.02	573	1.16	614	1.32	653	1.47	691	1.61	726	1.76	760	1.92	795	2.10	828	2.28	859	2.45	890	2.64
5500	551	1.16	593	1.31	632	1.47	670	1.64	706	1.78	741	1.93	774	2.09	807	2.26	840	2.46	871	2.64	902	2.83
5750	572	1.32	612	1.47	651	1.63	687	1.81	722	1.97	757	2.12	789	2.28	821	2.45	852	2.64	883	2.84	912	3.03
6000	593	1.48	632	1.64	670	1.81	705	1.99	739	2.17	772	2.32	804	2.48	835	2.66	865	2.84	895	3.04	924	3.24

	External Static Pressure (Inches of Water Gauge)											
	1.20"		1.30"		1.40"		1.50"		1.60"		1.70"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP High Static Motor				3 HP Ultra High Static Motor							
4000	863	1.9	891	2.03	919	2.15	944	2.28	970	2.40	994	2.53
4250	874	2.07	902	2.20	928	2.33	955	2.47	981	2.61	1004	2.74
4500	884	2.24	913	2.38	939	2.53	966	2.68	991	2.82	1015	2.96
4750	895	2.42	924	2.58	951	2.74	977	2.88	1002	3.04	—	—
5000	907	2.61	934	2.77	962	2.94	—	—	—	—	—	—
5250	918	2.81	946	2.98	973	3.16	—	—	—	—	—	—
5500	931	3.02	958	3.20	—	—	—	—	—	—	—	—
5750	941	3.23	—	—	—	—	—	—	—	—	—	—
6000	—	—	—	—	—	—	—	—	—	—	—	—

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (MBh) = 3.15 x BHP.
3. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 63. Evaporator fan performance — TWE156E — air handler (SI)

External Static Pressure (Inches of Water Gauge)																						
	25		50		75		100		125		150		174		199		224		249		274	
m³/hr	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW
	1.49 kW Standard Motor w/ Field Supplied Sheave & Belt						1.49 kW Standard Motor						2.24 kW High Static Motor									
6797	428	0.37	482	0.46	531	0.54	576	0.63	621	0.73	663	0.83	701	0.93	737	1.03	771	1.13	803	1.22	833	1.32
7222	448	0.43	499	0.53	546	0.61	590	0.70	633	0.80	674	0.91	712	1.02	748	1.13	782	1.23	814	1.33	845	1.44
7646	468	0.50	517	0.60	563	0.70	605	0.79	646	0.89	686	1.00	724	1.12	760	1.23	793	1.34	825	1.45	855	1.56
8071	488	0.58	535	0.68	579	0.79	621	0.88	660	0.98	698	1.09	735	1.21	772	1.34	805	1.46	837	1.57	867	1.69
8496	509	0.67	554	0.77	596	0.88	637	0.99	675	1.09	712	1.20	748	1.32	783	1.45	817	1.58	848	1.70	878	1.82
8921	530	0.76	573	0.87	614	0.99	653	1.10	691	1.20	726	1.31	760	1.43	795	1.57	828	1.70	859	1.83	890	1.97
9346	551	0.87	593	0.97	632	1.10	670	1.22	706	1.33	741	1.44	774	1.56	807	1.69	840	1.83	871	1.97	902	2.11
9770	572	0.98	612	1.09	651	1.22	687	1.35	722	1.47	757	1.58	789	1.70	821	1.83	852	1.97	883	2.11	912	2.26
10195	593	1.11	632	1.22	670	1.35	705	1.49	739	1.61	772	1.73	804	1.85	835	1.98	865	2.12	895	2.27	924	2.42

External Static Pressure (Inches of Water Gauge)												
	299		324		349		374		398		423	
m³/hr	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW
	2.24 kW High Static Motor w/ Field Supplied Sheave & Belt											
6797	863	1.42	891	1.51	919	1.61	944	1.70	970	1.79	994	1.88
7222	874	1.54	902	1.64	928	1.74	955	1.84	981	1.95	1004	2.04
7646	884	1.67	913	1.78	939	1.88	966	2.00	991	2.10	1015	2.21
8071	895	1.80	924	1.92	951	2.04	977	2.15	1002	2.26	—	—
8496	907	1.95	934	2.07	962	2.19	—	—	—	—	—	—
8921	918	2.09	946	2.22	973	2.35	—	—	—	—	—	—
9346	931	2.25	958	2.39	—	—	—	—	—	—	—	—
9770	941	2.41	—	—	—	—	—	—	—	—	—	—
10195	—	—	—	—	—	—	—	—	—	—	—	—

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (kW) = 3.15 x kW.
3. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 64. Evaporator fan performance —TWE201E — air handler (IP)

External Static Pressure (Inches of Water Gauge)																						
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"		1.10"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
			2 HP Low Static Motor										3 HP Standard Motor						3 HP Standard Motor w/ Field Supplied Sheave & Belt			
5200	—	—	531	0.83	580	0.96	627	1.09	666	1.21	707	1.37	748	1.54	787	1.71	825	1.88	864	2.06	902	2.24
5525	—	—	551	0.96	599	1.10	644	1.23	684	1.37	722	1.51	760	1.68	799	1.87	834	2.04	872	2.23	909	2.42
5850	—	—	572	1.10	619	1.25	662	1.39	703	1.54	738	1.68	774	1.84	810	2.02	846	2.22	880	2.40	916	2.60
6175	543	1.11	593	1.26	638	1.42	680	1.57	720	1.72	757	1.87	790	2.02	824	2.20	859	2.40	893	2.61	926	2.81
6500	566	1.28	614	1.43	659	1.61	699	1.77	737	1.92	775	2.08	807	2.24	839	2.40	871	2.59	904	2.80	936	3.02
6825	590	1.47	636	1.62	679	1.80	718	1.98	755	2.14	792	2.31	826	2.48	857	2.64	886	2.81	918	3.02	950	3.25
7150	614	1.67	658	1.83	700	2.02	738	2.21	774	2.38	809	2.55	844	2.73	875	2.90	903	3.07	932	3.26	962	3.47
7475	638	1.89	680	2.06	720	2.25	758	2.45	794	2.63	827	2.81	861	2.99	893	3.18	921	3.36	949	3.54	976	3.73
7800	662	2.13	702	2.31	742	2.50	779	2.71	814	2.91	846	3.09	879	3.28	910	3.48	940	3.67	967	3.86	993	4.04

External Static Pressure (Inches of Water Gauge)																
	1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	3 HP Standard Motor w/ Field Supplied Sheave & Belt		5 HP Ultra High Static Motor								5 HP Ultra High Static Motor w/ Field Supplied Sheave & Belt					
5200	937	2.42	972	2.59	1004	2.77	1036	2.95	1066	3.12	1095	3.29	1125	3.46	1152	3.63
5525	943	2.60	978	2.80	1012	2.99	1042	3.17	1072	3.35	1102	3.54	1132	3.73	1159	3.91
5850	951	2.80	984	3.00	1018	3.21	1050	3.41	1080	3.60	1109	3.80	1138	4.00	1166	4.19
6175	958	3.00	992	3.22	1024	3.43	1056	3.64	1086	3.86	1115	4.06	1143	4.27	—	—
6500	967	3.22	998	3.44	1030	3.65	1063	3.89	1093	4.11	1122	4.33	1151	4.56	—	—
6825	980	3.47	1010	3.69	1039	3.90	1069	4.13	1098	4.36	1129	4.61	1158	4.85	—	—
7150	991	3.70	1021	3.94	1051	4.18	1078	4.41	1107	4.65	1135	4.88	1165	5.14	—	—
7475	1005	3.97	1034	4.21	1062	4.46	1090	4.71	1117	4.94	1144	5.19	—	—	—	—
7800	1019	4.24	1047	4.49	1074	4.74	1102	5.01	1128	5.25	1154	5.51	—	—	—	—

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (MBh) = 3.15 x BHP.
3. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 65. Evaporator fan performance — TWE201E — air handler (SI)

External Static Pressure (Inches of Water Gauge)																						
	25		50		75		100		125		150		174		199		224		249		274	
m^3/hr	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW
			1.49 kW Low Static Motor										2.24 kW Standard Motor						2.24 kW Standard Motor w/ Field Supplied Sheave & Belt			
8836	—	—	531	0.62	580	0.71	627	0.81	666	0.90	707	1.02	748	1.15	787	1.27	825	1.40	864	1.54	902	1.67
9388	—	—	551	0.72	599	0.82	644	0.92	684	1.02	722	1.12	760	1.25	799	1.39	834	1.52	872	1.66	909	1.80
9940	—	—	572	0.82	619	0.94	662	1.04	703	1.15	738	1.25	774	1.37	810	1.51	846	1.65	880	1.79	916	1.94
10493	543	0.83	593	0.94	638	1.06	680	1.17	720	1.29	757	1.40	790	1.51	824	1.64	859	1.79	893	1.94	926	2.09
11045	566	0.95	614	1.07	659	1.20	699	1.32	737	1.43	775	1.55	807	1.67	839	1.79	871	1.93	904	2.09	936	2.25
11597	590	1.09	636	1.21	679	1.34	718	1.48	755	1.59	792	1.72	826	1.85	857	1.97	886	2.09	918	2.25	950	2.42
12149	614	1.25	658	1.37	700	1.50	738	1.65	774	1.77	809	1.90	844	2.03	875	2.16	903	2.29	932	2.43	962	2.59
12702	638	1.41	680	1.54	720	1.68	758	1.83	794	1.96	827	2.09	861	2.23	893	2.37	921	2.51	949	2.64	976	2.79
13254	662	1.59	702	1.72	742	1.86	779	2.02	814	2.17	846	2.31	879	2.45	910	2.59	940	2.74	967	2.88	993	3.02

Table 65. Evaporator fan performance — TWE201E — air handler (SI) (continued)

	External Static Pressure (Inches of Water Gauge)													
	299		324		349		374		398		423		448	
m^3/hr	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW
	3.73 kW Ultra High Static Motor				3.73 kW Ultra High Static Motor w/ Field Supplied Sheave & Belt									
8836	937	1.80	972	1.94	1004	2.07	1036	2.20	1066	2.33	1095	2.45	1125	2.58
9388	943	1.94	978	2.09	1012	2.23	1042	2.36	1072	2.50	1102	2.64	1132	2.78
9940	951	2.09	984	2.24	1018	2.39	1050	2.54	1080	2.69	1109	2.83	—	—
10493	958	2.24	992	2.40	1024	2.56	1056	2.72	1086	2.88	1115	3.03	—	—
11045	967	2.40	998	2.56	1030	2.73	1063	2.90	1093	3.07	1122	3.23	—	—
11597	980	2.59	1010	2.75	1039	2.91	1069	3.08	1098	3.26	1129	3.44	—	—
12149	991	2.76	1021	2.94	1051	3.12	1078	3.29	1107	3.47	—	—	—	—
12702	1005	2.96	1034	3.14	1062	3.32	1090	3.51	1117	3.69	—	—	—	—
13254	1019	3.17	1047	3.35	1074	3.54	1102	3.74	1128	3.92	—	—	—	—

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (kW) = 3.15 x kW.
3. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 66. Low static fan motors - standard air handlers

Model	Motor	Motor Sheave Turns Open	Nominal RPM	Required Field Supplied Components		
				Motor Sheave	Blower Sheave	Belt
TWE156	Standard Motor with Field Supplied Components 2 HP (2.25 kW)	0 1 2 3 4 5	541 511 464 417 370 391	Variable Pitch (2.4 - 3.4 Inch Pitch Diameter), 0.875 Inch Bore, Single Groove, Browning 1VL40	Fixed Pitch (9.5 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning BK105	Browning AX59
TWE201	Low Static Motor 2 HP (2.25 kW)	0 1 2 3 4 5	712 677 641 605 569 533	N/A	N/A	N/A

Table 67. Standard fan motors - standard air handlers

Model	Motor	Motor Sheave Turns Open	Nominal RPM	Required Field Supplied Components		
				Motor Sheave	Blower Sheave	Belt
TWE051	Standard Motor .5 HP (.38 kW)	0 1 2 3 4 5	892 833 773 714 654 595	N/A	N/A	N/A
TWE076	Standard Motor 1 HP (.75 kW)	0 1 2 3 4 5	706 659 612 565 518 471	N/A	N/A	N/A
TWE101	Standard Motor 1.5 HP (1.12 kW)	0 1 2 3 4 5	682 644 606 568 530 492	N/A	N/A	N/A
TWE126	Standard Motor 1.5 HP	0 1 2 3 4 5	640 604 569 533 498 462	N/A	N/A	N/A
TWE156	Standard Motor 2 HP	0 1 2 3 4 5 6	704 676 648 620 592 565 537	N/A	N/A	N/A
TWE201	Standard Motor 3 HP	0 1 2 3 4 5 6	805 777 749 721 693 665 637	N/A	N/A	N/A

Table 68. High static fan motors - standard air handlers

Model	Motor	Motor Sheave Turns Open	Nominal RPM	Required Field Supplied Components		
				Motor Sheave	Blower Sheave	Belt
TWE051	High Static Motor 1 HP (.75kW)	0 1 2 3 4 5	1122 1066 1010 954 898 842	N/A	N/A	N/A
TWE076	High Static Motor 1.5 HP (1.12 kW)	0 1 2 3 4 5	912 866 820 775 729 683	N/A	N/A	N/A
TWE101	High Static Motor 2 HP (1.12 kW)	0 1 2 3 4 5	810 769 729 688 648 607	N/A	N/A	N/A
TWE101	High Static Motor with Field Supplied Components 2 HP (1.49 kW)	0 1 2 3 4 5	941 894 847 800 753 706	Variable Pitch (2.8 - 3.8 Inch Pitch Diameter), 0.875 Inch Bore, Single Groove, Browning 1VP44	Fixed Pitch (6.0 Inch Pitch Diameter), 1.0 Inch Bore, Single Groove, Browning AK64	Browning A50
TWE126	Standard Motor with Field Supplied Components 1.5 HP (1.49 kW)	0 1 2 3 4 5	761 718 671 624 577 549	Variable Pitch (2.4 - 3.4 Inch Pitch Diameter), 0.875 Inch Bore, Single Groove, Browning 1VL40	Fixed Pitch (6.7 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning AK71	Browning A55
TWE126	High Static Motor 2 HP	0 1 2 3 4 5	912 866 825 785 744 683	N/A	N/A	N/A
TWE156	High Static Motor 3 HP	0 1 2 3 4 5 6	853 824 794 765 735 705 676	N/A	N/A	N/A
TWE156	High Static Motor with Field Supplied Components 3 HP (2.25 kW)	0 1 2 3 4 5 6	1014 979 932 885 838 803 803	Variable Pitch (3.4 - 4.4 Inch Pitch Diameter), 1.125 Inch Bore, Single Groove, Browning 1VP50	Fixed Pitch (6.6 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning BK72	Browning BX58
TWE201	Standard Motor with Field Supplied Components 3 HP (2.25 kW)	0 1 2 3 4 5 6	909 878 846 815 783 751 720	Variable Pitch (2.8 - 3.8 Inch Pitch Diameter), 1.125 Inch Bore, Single Groove, Browning 1VP50	Fixed Pitch (10.4 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning BK80	Browning BX62

Table 69. Ultra high static fan motors - standard air handlers

Model	Motor	Motor Sheave Turns Open	Nominal RPM	Required Field Supplied Components		
				Motor Sheave	Blower Sheave	Belt
TWE076	Ultra High Static Motor 2 HP (1.5 kW)	0 1 2 3 4 5 —	1122 1034 946 859 771 683 —	N/A	N/A	N/A
TWE126	Ultra High Static Motor 3 HP	0 1 2 3 4 5 6	1014 979 944 909 874 838 803	N/A	N/A	N/A
TWE201	Ultra High Static Motor 5 HP	0 1 2 3 4 5 6	1078 1036 993 950 907 864 822	N/A	N/A	N/A
TWE201	Ultra High Static Motor with Field Supplied Components 5 HP (3.75 kw)	0 1 2 3 4 5 6	1096 1067 1036 1004 973 941 926	Variable Pitch (2.8 - 3.8 Inch Pitch Diameter), 1.125 Inch Bore, Single Groove, Browning 1VP44	Fixed Pitch (10.4 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning BK110	Browning BX62

Table 70. Discharge plenum and grille assembly throw distance — air handler — ft (m)

Unit Model No.	CFM	m^3/h	Louver angle Deflection Position (ft)				Louver angle Deflection Position (m)			
			Straight	20°	40°	55°	Straight	20°	40°	55°
TWE051	1800	3060	46	37	29	22	14.0	11.3	8.8	6.7
	2000	3395	48	43	33	24	14.6	13.1	10.1	7.3
	2200	3737	51	50	36	25	15.5	15.2	11.0	7.6
	2400	4074	44	58	41	28	13.4	17.7	12.5	8.5
TWE076	2250	3823	51	41	33	28	15.4	12.4	10.0	8.6
	2500	4249	53	45	36	30	16.2	13.6	10.9	9.0
	2750	4671	56	49	39	31	16.9	14.9	11.9	9.4
	3000	5098	58	53	42	32	17.7	16.2	12.8	9.9
TWE101	3025	5139	57	44	36	32	17.4	13.4	10.8	9.6
	3350	5692	60	48	39	32	18.3	14.7	12.0	9.7
	3675	6245	63	52	43	33	19.3	16.0	13.2	10.0
	4000	6795	67	57	47	35	20.3	17.3	14.4	10.5
TWE126	3750	6370	44	27	25	38	13.4	8.1	7.5	11.7
	4200	7137	45	31	28	48	13.7	9.5	8.5	14.5
	4650	7902	47	36	31	57	14.3	10.9	9.5	17.4
	5100	8666	50	40	34	67	15.2	12.3	10.5	20.5
TWE156	4500	7644	46	34	30	22	14.1	10.5	9.2	6.6
	5000	8497	49	39	34	25	14.9	12.0	10.3	7.6
	5500	9346	53	45	37	28	16.2	13.6	11.4	8.5
	6000	10195	58	50	41	31	17.7	15.1	12.5	9.3

Table 70. Discharge plenum and grille assembly throw distance — air handler — ft (m) (continued)

TWE201	6000	10195	53	43	36	28	16.0	13.1	10.9	8.6
	6680	11348	57	48	40	31	17.5	14.5	12.1	9.4
	7350	12488	62	52	44	33	18.8	16.0	13.3	10.0
	8030	13645	65	57	47	35	19.8	17.4	14.5	10.5

Note: Throw distance values are based on a terminal velocity of 75 fpm (0.38 m/s). Throw distance values at other terminal velocities may be established by multiplying throw distances in table above by throw factor as follows: for 50 FPM (0.25 m/s) terminal velocity, multiply by 1.50 throw factor; for 100 FPM (0.51 m/s) terminal velocity, multiply by 0.75 throw factor; for 150 FPM (0.76 m/s) terminal velocity, multiply by 0.50 throw factor.

Table 71. Static pressure drop through accessories (inches if water column) — air handler

Unit Model No.	CFM	m^3/h	Return Grille		Discharge Plenum & Grille[b]		Electric Heaters (kW)							
							5–10		15–20		25–30		35–50	
			in. wc	Pascal	in. wc	Pascal	in. wc	Pascal	in. wc	Pascal	in. wc	Pascal	in. wc	Pascal
TWE051	1400	2379	0.09	23.60	0.16	41.10	0.06	16.20	0.05	13.70	0.09	23.60	—	—
	1700	2889	0.14	34.90	0.24	60.60	0.09	23.90	0.08	20.20	0.14	34.90	—	—
	2000	3398	0.18	45.70	0.33	83.80	0.13	33.00	0.13	33.00	0.19	48.30	—	—
TWE076	2000	3398	0.06	14.70	0.18	45.20	0.03	6.80	0.05	13.50	0.08	19.20	0.10	26.00
	2500	4248	0.09	22.90	0.28	70.60	0.04	10.60	0.08	21.20	0.12	30.00	0.16	40.60
	3000	5098	0.13	33.00	0.40	101.60	0.06	15.20	0.12	30.50	0.17	43.20	0.23	58.40
TWE101	2600	4418	0.05	11.70	0.28	72.10	0.04	10.10	0.09	21.80	0.13	31.90	0.17	43.60
	3300	5607	0.70	18.90	0.46	116.20	0.06	16.20	0.14	35.10	0.20	51.30	0.28	70.20
	4000	6797	0.11	27.80	0.67	170.70	0.09	23.80	0.20	51.60	0.30	75.40	0.41	103.20
TWE126	3200	5436	0.04	10.20	0.10	25.60	0.01	2.50	0.02	5.00	0.03	7.50	0.04	10.00
	4000	6797	0.06	15.90	0.16	39.90	0.02	5.00	0.03	7.50	0.04	10.00	0.06	15.00
	4800	8156	0.09	22.90	0.23	57.50	0.03	7.50	0.03	7.50	0.06	15.00	0.08	20.00
TWE156	4000	6797	0.70	16.90	0.15	38.40	0.02	3.80	0.03	6.80	0.05	13.50	0.08	19.20
	5000	8496	0.10	26.50	0.24	60.00	0.04	10.60	0.04	10.60	0.08	21.20	0.12	30.00
	6000	10195	0.15	38.10	0.34	86.40	0.06	15.20	0.06	15.20	0.12	30.50	0.17	43.20
TWE201	5200	8836	0.70	18.40	0.30	73.80	0.04	10.60	0.04	10.60	0.08	21.10	0.13	31.70
	6650	11300	0.12	30.20	0.46	114.90	0.70	17.30	0.70	17.30	0.14	34.50	0.21	51.80
	7800	13254	0.16	41.50	0.63	156.10	0.10	23.80	0.10	23.80	0.19	47.50	0.29	71.30

Notes:
1. Return air filter ESP included in Fan Performance Table data.
2. On discharge plenum and grille - at louver opening angle of 42°F (5.5°C). For ESP at other angle openings, see accessory installation instruction.

Table 72. Auxiliary electric heat capacity — air handler

Unit Model No.	Total kW	No. of Stages	Stage 1		Stage 2		Total	
			kW Input	Btu Output	kW Input	Btu Output	kW Input	Btu Output
TWE051, 076, 101DD/ED	5.00	1	5.00	17,065	—	—	5.00	17,065
	9.96	1	9.96	33,993	—	—	9.96	33,993
	14.96	1	14.96	51,058	—	—	14.96	51,058
	24.92	2	14.96	51,058	9.96	33993	24.92	85,051
TWE076, 101DD/ED	34.88	2	19.92	67,987	14.96	51058	34.88	119,045
TWE126, 156, 201ED	10.00	1	10.00	34,130	—	—	10.00	34,130
	19.92	1	19.92	67,987	—	—	19.92	67,987
	29.92	2	19.92	67,987	10.00	34130	29.92	102,117
	49.84	2	29.92	102,117	19.92	67987	49.84	170,104

Note: Heaters are rated at 240V, 480V and 600V. For other than rated voltage, capacity = (Voltage/Related Voltage)^2 x Rated Capacity

Controls

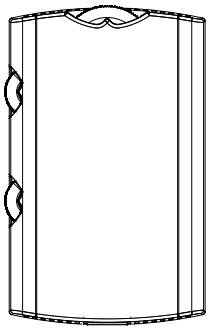
ReliaTel

Zone Sensors are the building occupant's comfort control devices. Zone sensors are required for SZVAV applications. The following zone sensor options are available for units with ReliaTel control.

RA Remote Sensor

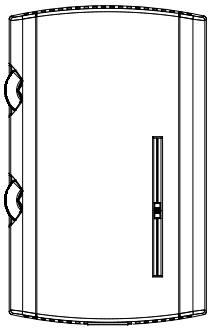
Return Air Remote Sensor which can be mounted in the return air duct to report return air temperature.

Manual Changeover



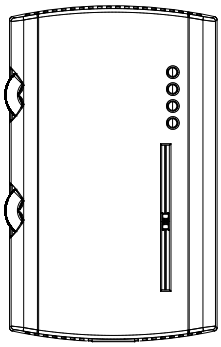
Heat, Cool or Off System Switch. Fan Auto or Off Switch. One temperature setpoint lever.

Manual/Automatic Changeover



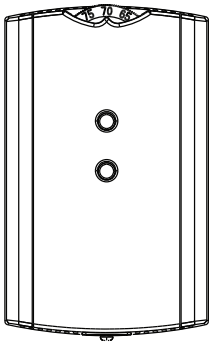
Auto, Heat, Cool or Off System Switch. Fan Auto or Off Switch. Two temperature setpoint levers.

Manual/Automatic Changeover



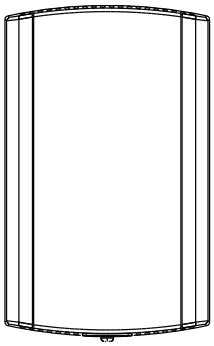
Auto, Heat, Cool or Off System Switch. Fan Auto or Off Switch. Two temperature setpoint levers. Status Indication LED lights, System On, Heat, Cool, or Service.

Integrated Comfort™ System



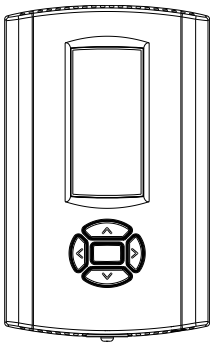
Sensor(s) available with optional temperature adjustment and override buttons to provide central control through a Trane Integrated Comfort™ system.

Remote Sensor



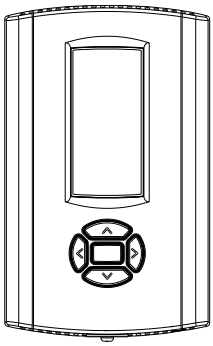
Sensor(s) available for all zone sensors to provide remote sensing capabilities.

Wireless Zone Sensor



LCD display that provides heat, cool, auto or off. Includes two temperature setpoints and a lockable setting with °F or °C indicators.

Programmable Night Setback

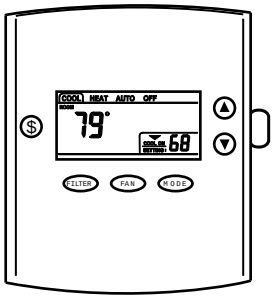


Auto or manual changeover with seven-day programming. Keyboard selection of Heat, Cool, Fan, Auto, EM Heat or On. All sensors have System On, Heat, Cool, Service LED/ indicators as standard. Night Setback Sensors have one (1) Occupied, one (1) Un-occupied, and one (1) Override program per day.

Electromechanical

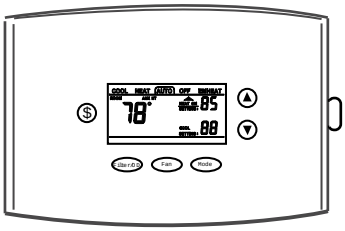
Non-Programmable Thermostats

TCONT200* (1H/1C)**



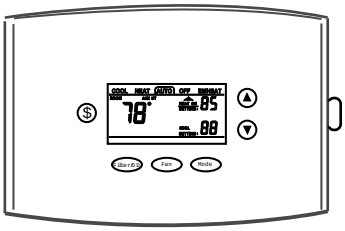
Auto-changeover Backlit Display & Keys Filter Reminder Keypad Lock

TCONT401* (2H/1C)**



Auto-changeover Backlit Display & Keys Filter Reminder Keypad Lock Outdoor Temp Sensor Available

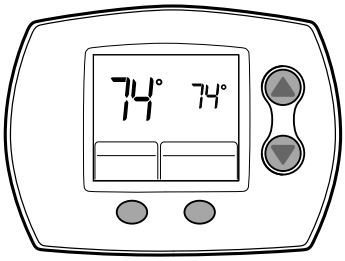
TCONT402* (3H/2C)**



Auto-changeover Backlit Display & Keys Filter Reminder Keypad Lock Outdoor Temp Sensor Included

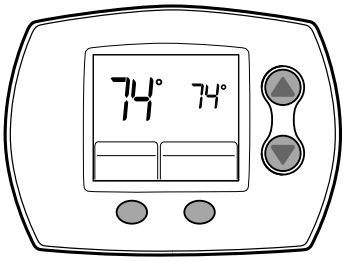
Programmable Thermostats

TCONT600*(1H/1C)**



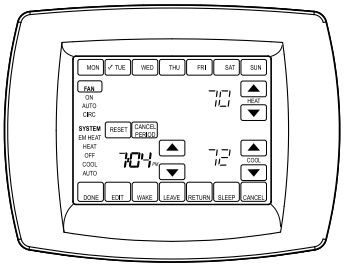
5/2 or 5/1/1 Programming Actual and Setpoint temps displayed simultaneously

TCONT602*(2H/2C)**



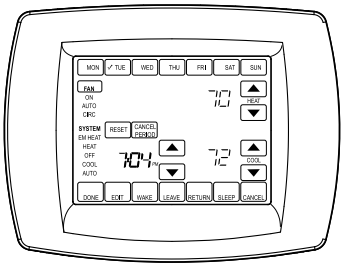
5/2 or 5/1/1 Programming Actual and Setpoint temps displayed simultaneously

TCONT800* (1H/1C)**



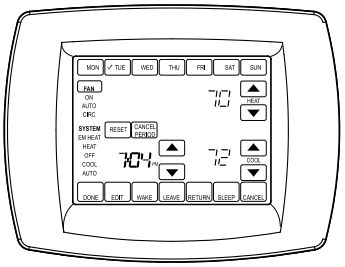
Interactive touchscreen Large display Real time clock

TCONT802* (3H/2C)**



Interactive touchscreen Large display Real time clock

TCONT803* (3H/2C)**



Interactive touchscreen Large display Real time clock Built-in humidity sensor

Notes:

- *All thermostats may be used with ReliaTel units.*
- *Thermostats may be used with ReliaTel-equipped Cooling units, but only when matched with Standard Air Handlers (SZVAV Air Handlers excluded).*

Electrical Data

Heat Pump Condenser

Table 73. Electrical Characteristics — Motors — Heat Pumps — 50Hz

Unit Model Number	Compressor Motor					Condenser Fan Motor				
	No.	Volts	Phase	Amps		No.	Volts	Phase	Amps	
				RLA (Ea.)	LRA (Ea.)				RLA (Ea.)	LRA (Ea.)
TWA061DD	1	380/415	3	10.9	74	1	380/415	1	1.6	3.8
TWA076DD	1	380/415	3	12.5	101	1	380/415	1	1.6	3.8
TWA101DD	1	380/415	3	17.2	111	1	380/415	1	1.9	5.8
TWA156ED	2	380/415	3	12.5	100	2	380/415	1	1.9	5.8
TWA201ED	2	380/415	3	18.5	118	2	380/415	1	1.9	5.8

Table 74. Unit wiring — heat pumps — 50 Hz

Tons	Unit Model Number	Unit Operating Voltage Range	Maximum Circuit Ampacity	Maximum Fuse Size or Maximum Circuit Breaker
5	TWA061DD	380/415	15.2	20
6.25	TWA076DD	380/415	17.3	25
8.33	TWA101DD	380/415	23.4	30
13	TWA156ED	380/415	32.0	40
16.7	TWA201ED	380/415	45.4	60

Note: HACR type circuit breaker per NEC.

Air Handler (Standard and SZVAV)

Table 75. Electrical characteristics — standard motor — 50 Hz air handler

Tons	Unit Model Number	Standard Evaporator Fan Motor				
		No.	Volts	Phase	Amps	
					FLA	LRA
4.6	TWE051DD	1	380	3	1.4	8.0
		1	415	3	1.0	8.4
6.25	TWE076DD	1	380	3	3.1	17.0
		1	415	3	3.2	16.8
8.33	TWE101DD, ED	1	380	3	3.4	17.3
		1	415	3	3.2	19.0
10.4	TWE126ED	1	380	3	3.2	35.0
		1	415	3	3.1	35.0
13	TWE156ED	1	380	3	4.0	33.1
		1	415	3	4.0	36.1
16.7	TWE201ED	1	380	3	8.0	43.2
		1	415	3	8.0	48.6

Table 76. Unit wiring — air handler — 50 Hz

Tons	Unit Model Number	Minimum Unit Operating Voltage Range	Maximum Fuse Circuit Ampacity Ampacity	Size or Maximum Circuit Breaker
4.6	TWE051DD	380/415	4	15
6.25	TWE076DD	380/415	5	15
8.33	TWE101DD, ED	380/415	5	15
10.4	TWE126ED	380/415	5	15
13	TWE156ED	380/415	6	15
16.7	TWE201ED	380/415	10	15

Table 77. Unit wiring with electric heat (single point connection) — air handlers

Heater Model No.	Heater kW Rating	To Use with Unit	Control Stages	Minimum Circuit Ampacity	Maximum Fuse Breaker Size
BAYHTRL405*	5	TWE051DD	1	13	15
BAYHTRL410*	9.96		1	22	25
BAYHTRL415*	14.96		1	31	35
BAYHTRL425*	24.92		2	49	50
BAYHTRL405*	5	TWE076DD	1	14	15
BAYHTRL410*	9.96		1	23	25
BAYHTRL415*	14.96		1	32	35
BAYHTRL425*	24.92		2	50	50
BAYHTRL435*	34.88		2	68	70
BAYHTRL405*	5	TWE101DD, TWE101ED	1	14	15
BAYHTRL410*	9.96		1	23	25
BAYHTRL415*	14.96		1	32	35
BAYHTRL425*	24.92		2	50	50
BAYHTRL435*	34.88		2	68	70
BAYHTRM410*	10	TWE126ED	1	19	20
BAYHTRM420*	19.92		1	41	45
BAYHTRM430*	29.92		2	59	60
BAYHTRM450*	49.84		2	94	100
BAYHTRM410*	10	TWE156ED	1	23	25
BAYHTRM420*	19.92		1	41	45
BAYHTRM430*	29.92		2	59	60
BAYHTRM450*	49.84		2	95	100
BAYHTRM410*	10	TWE201ED	1	29	30
BAYHTRM420*	19.92		1	46	50
BAYHTRM430*	29.92		2	65	70
BAYHTRM450*	49.84		2	100	100

Jobsite Connections

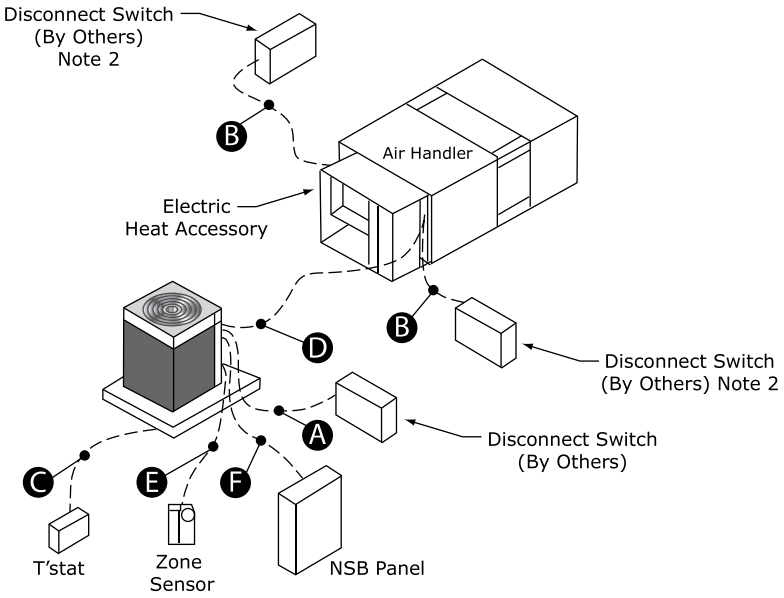
ReliaTel Controls

Wiring shown with dashed lines is to be furnished and installed by the customer. All customer supplied wiring must be copper only and must conform to NEC and local electrical codes. Codes may require line of sight between disconnect switch and unit.

Notes:

1. *When electric heater accessory is used, single point power entry or dual point power entry is field optional. Single point power entry option is through electric heater only.*
2. ****Choose only one of the following; Thermostat, Zone Sensor, or NSB Panel.*

Figure 9. ReliaTel jobsite connections



A. 3 power wires, line voltage for 3 phase, (2 power wires for single phase)

B. 3 power wires, line voltage for 3 phase, (2 power wires for single phase)

C. Heat Pump thermostat: 5 to 8 wires depending on stages of electric heat

D. 3 to 7 wires depending on type of outdoor unit(s)

E. Zone Sensor: 4 to 10 wires depending on zone sensor model[a]

F. Night Setback Panel: 7 wires

[a] For SZVAV air handlers: 4 additional wires are required (2 of which require twisted pair or shielded wire) in order to make connections between ReliaTel boards in the condenser and air handler.

Dimensional Data

Heat Pump Condenser

Figure 10. 5-6.25 ton heat pump, single compressor

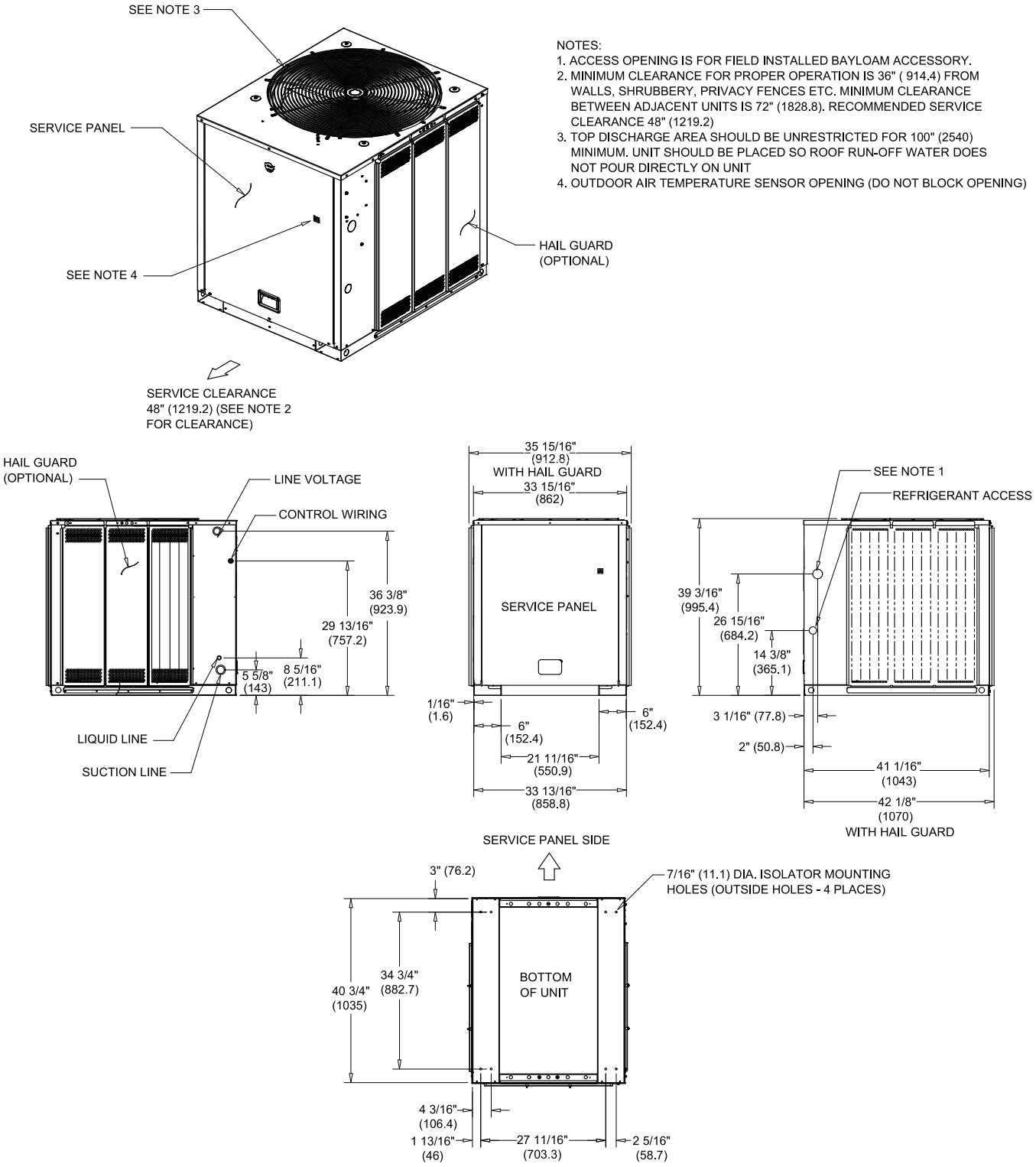
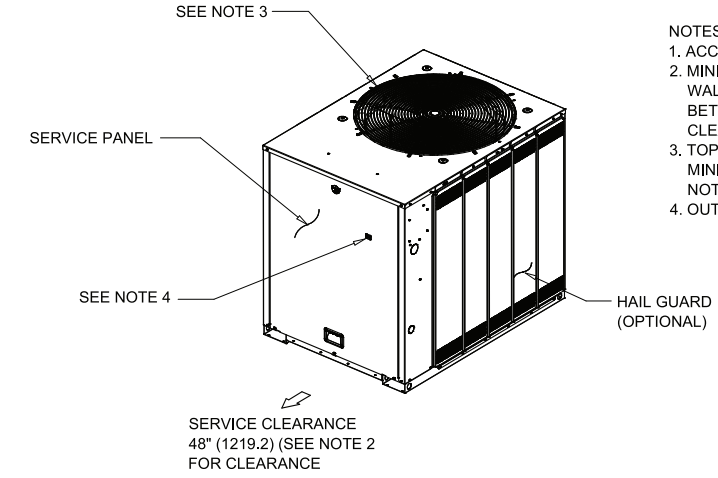

SEE NOTE 3
SERVICE PANEL
SEE NOTE 4
HAIL GUARD (OPTIONAL)
SERVICE CLEARANCE 48" (1219.2) (SEE NOTE 2 FOR CLEARANCE)
NOTES:
1. ACCESS OPENING IS FOR FIELD INSTALLED BAYLOAM ACCESSORY.
2. MINIMUM CLEARANCE FOR PROPER OPERATION IS 36" (914.4) FROM WALLS, SHRUBBERY, PRIVACY FENCES ETC. MINIMUM CLEARANCE BETWEEN ADJACENT UNITS IS 72" (1828.8). RECOMMENDED SERVICE CLEARANCE 48" (1219.2)
3. TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR 100" (2540) MINIMUM. UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR DIRECTLY ON UNIT
4. OUTDOOR AIR TEMPERATURE SENSOR OPENING (DO NOT BLOCK OPENING)
HAIL GUARD (OPTIONAL)
LINE VOLTAGE
CONTROL WIRING
36 3/8" (923.9)
29 13/16" (757.2)
5 5/8" (143)
8 5/16" (211.1)
LIQUID LINE
SUCTION LINE
35 15/16" (912.8)
WITH HAIL GUARD
33 15/16" (862)
SERVICE PANEL
1/16" (1.6)
6" (152.4)
6" (152.4)
21 11/16" (550.9)
33 13/16" (858.8)
SEE NOTE 1
REFRIGERANT ACCESS
39 3/16" (995.4)
26 15/16" (684.2)
14 3/8" (365.1)
3 1/16" (77.8)
2" (50.8)
41 1/16" (1043)
42 1/8" (1070)
WITH HAIL GUARD
SERVICE PANEL SIDE
3" (76.2)
7/16" (11.1) DIA. ISOLATOR MOUNTING HOLES (OUTSIDE HOLES - 4 PLACES)
40 3/4" (1035)
34 3/4" (882.7)
BOTTOM OF UNIT
4 3/16" (106.4)
1 13/16" (46)
27 11/16" (703.3)
2 5/16" (58.7)

Figure 11. 8.33 ton heat pump, single compressor



NOTES:
1. ACCESS OPENING IS FOR FIELD INSTALLED BAYLOAM ACCESSORY.
2. MINIMUM CLEARANCE FOR PROPER OPERATION IS 36" (914.4) FROM WALLS, SHRUBBERY, PRIVACY FENCES ETC. MINIMUM CLEARANCE BETWEEN ADJACENT UNITS IS 72" (1828.8). RECOMMENDED SERVICE CLEARANCE 48" (1219.2)
3. TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR 100" (2540) MINIMUM. UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR DIRECTLY ON UNIT
4. OUTDOOR AIR TEMPERATURE SENSOR OPENING (DO NOT BLOCK OPENING)

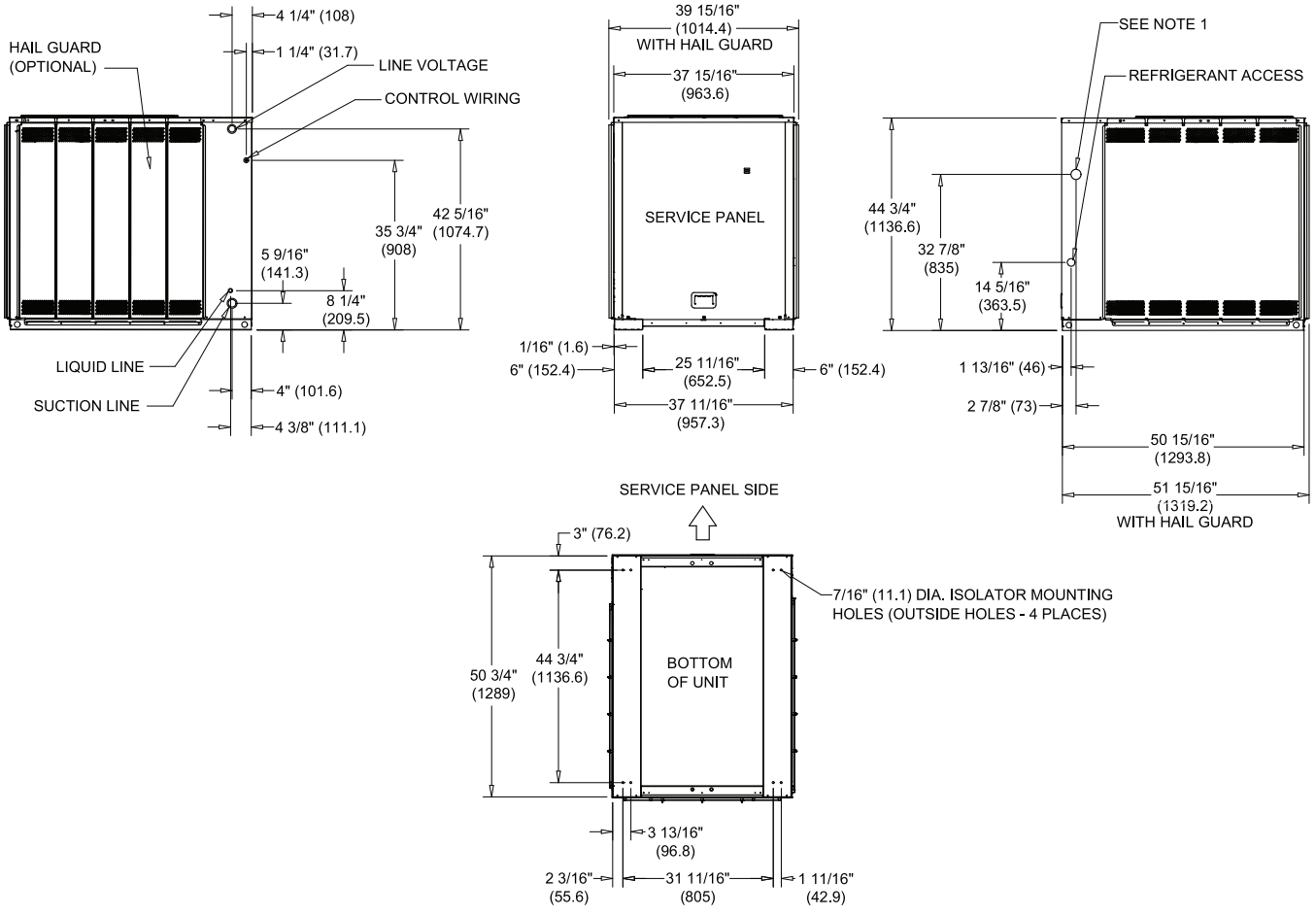
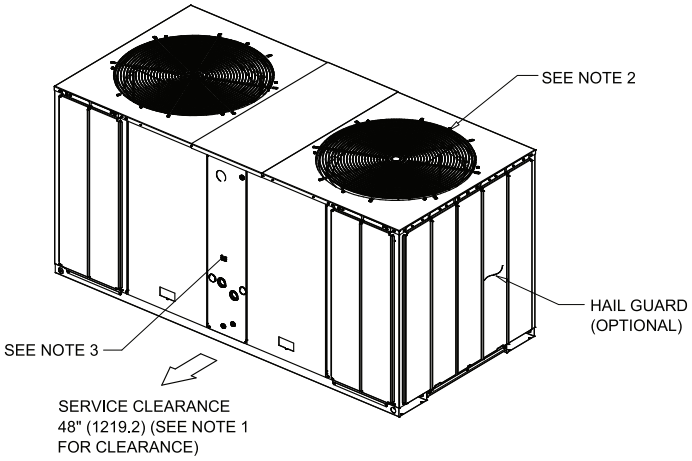
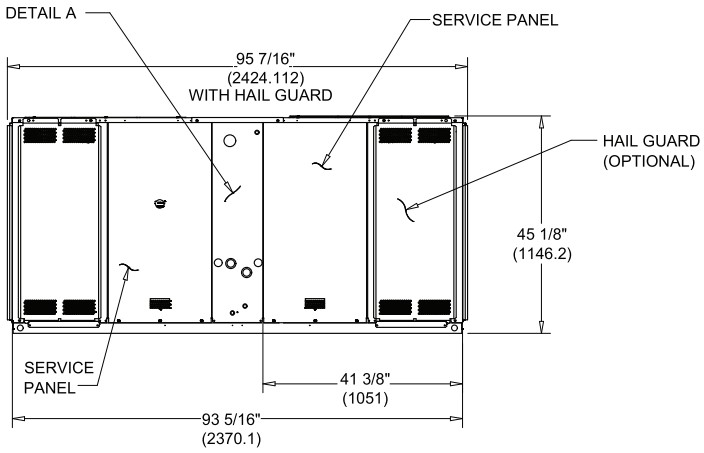
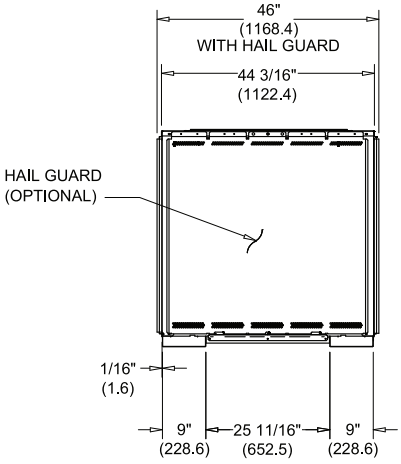


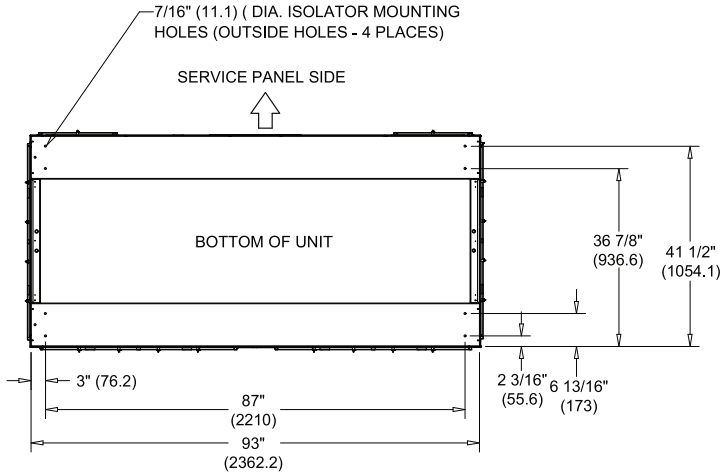
Figure 12. 13-16.7 ton heat pump, dual compressor

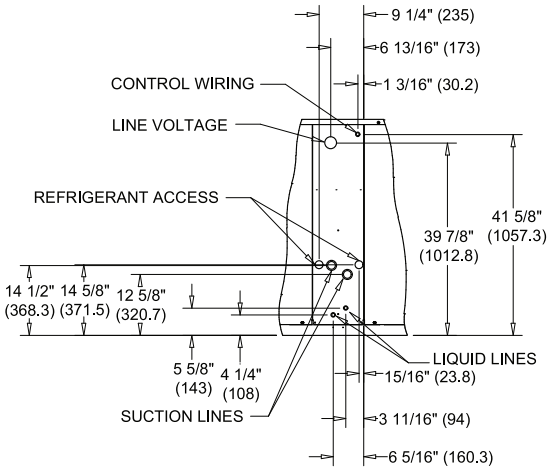


NOTES:
1. MINIMUM CLEARANCE FOR PROPER OPERATION IS 36" (914.4) FROM WALLS, SHRUBBERY, PRIVACY FENCES ETC. MINIMUM CLEARANCE BETWEEN ADJACENT UNITS IS 72" (1829). RECOMMENDED SERVICE CLEARANCE 48" (1219.2)
2. TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR 100" (2540) MINIMUM. UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR DIRECTLY ON UNIT
3. OUTDOOR AIR TEMPERATURE SENSOR OPENING (DO NOT BLOCK OPENING).









FRONT DETAIL A
DIMENSIONAL DETAIL

Air Handler

Figure 13. 4.6 ton air handler, single circuit

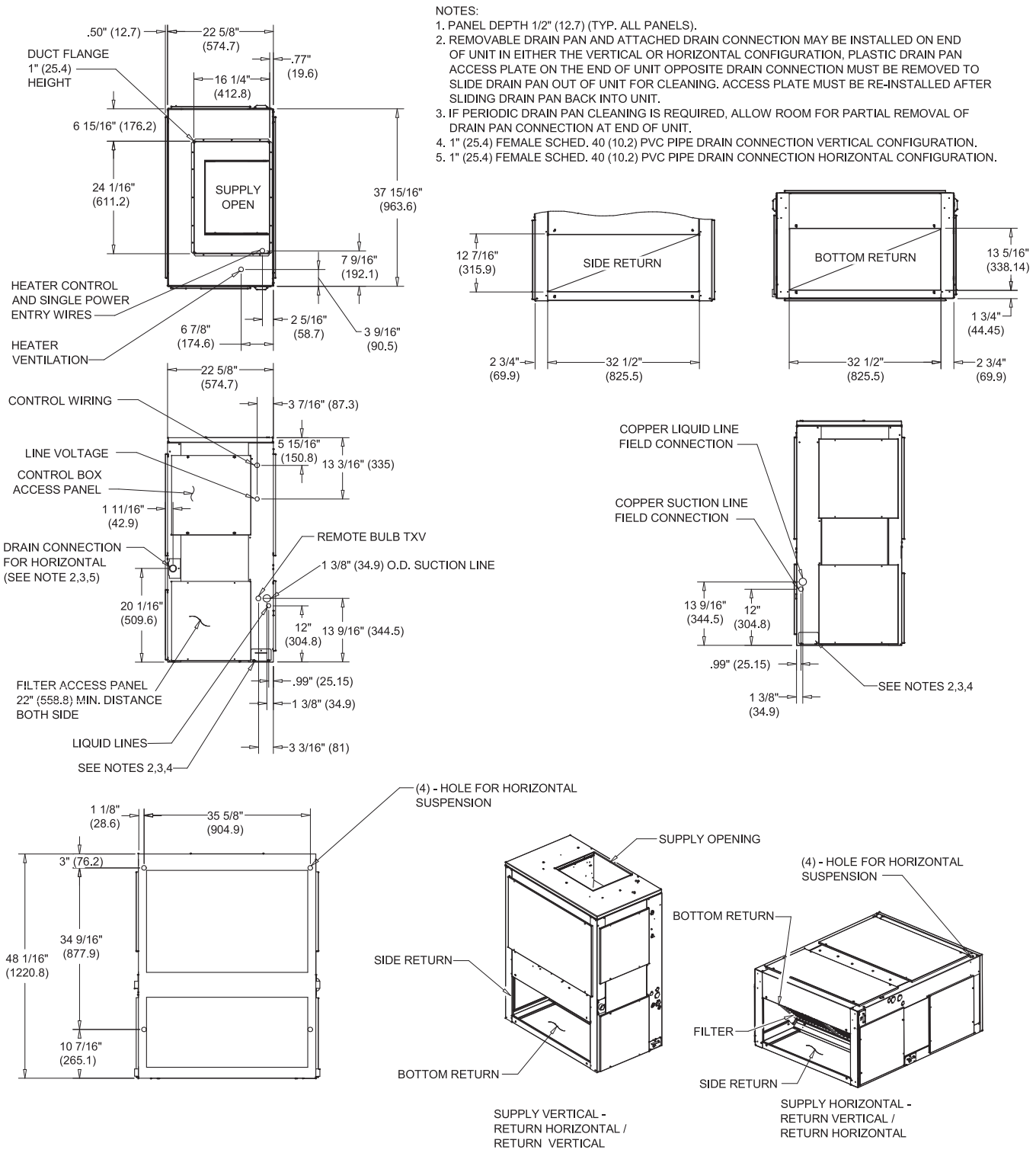

NOTES:
1. PANEL DEPTH 1/2" (12.7) (TYP. ALL PANELS).
2. REMOVABLE DRAIN PAN AND ATTACHED DRAIN CONNECTION MAY BE INSTALLED ON END OF UNIT IN EITHER THE VERTICAL OR HORIZONTAL CONFIGURATION, PLASTIC DRAIN PAN ACCESS PLATE ON THE END OF UNIT OPPOSITE DRAIN CONNECTION MUST BE REMOVED TO SLIDE DRAIN PAN OUT OF UNIT FOR CLEANING. ACCESS PLATE MUST BE RE-INSTALLED AFTER SLIDING DRAIN PAN BACK INTO UNIT.
3. IF PERIODIC DRAIN PAN CLEANING IS REQUIRED, ALLOW ROOM FOR PARTIAL REMOVAL OF DRAIN PAN CONNECTION AT END OF UNIT.
4. 1" (25.4) FEMALE SCHED. 40 (10.2) PVC PIPE DRAIN CONNECTION VERTICAL CONFIGURATION.
5. 1" (25.4) FEMALE SCHED. 40 (10.2) PVC PIPE DRAIN CONNECTION HORIZONTAL CONFIGURATION.
.50" (12.7)
22 5/8" (574.7)
.77" (19.6)
DUCT FLANGE 1" (25.4) HEIGHT
16 1/4" (412.8)
6 15/16" (176.2)
24 1/16" (611.2)
SUPPLY OPEN
37 15/16" (963.6)
7 9/16" (192.1)
HEATER CONTROL AND SINGLE POWER ENTRY WIRES
HEATER VENTILATION
6 7/8" (174.6)
2 5/16" (58.7)
3 9/16" (90.5)
12 7/16" (315.9)
SIDE RETURN
2 3/4" (69.9)
32 1/2" (825.5)
BOTTOM RETURN
13 5/16" (338.14)
1 3/4" (44.45)
32 1/2" (825.5)
2 3/4" (69.9)
22 5/8" (574.7)
CONTROL WIRING
3 7/16" (87.3)
5 15/16" (150.8)
13 3/16" (335)
LINE VOLTAGE
CONTROL BOX ACCESS PANEL
1 11/16" (42.9)
REMOTE BULB TXV
DRAIN CONNECTION FOR HORIZONTAL (SEE NOTE 2,3,5)
1 3/8" (34.9) O.D. SUCTION LINE
20 1/16" (509.6)
12" (304.8)
13 9/16" (344.5)
.99" (25.15)
1 3/8" (34.9)
FILTER ACCESS PANEL 22" (558.8) MIN. DISTANCE BOTH SIDE
LIQUID LINES
3 3/16" (81)
SEE NOTES 2,3,4
COPPER LIQUID LINE FIELD CONNECTION
COPPER SUCTION LINE FIELD CONNECTION
13 9/16" (344.5)
12" (304.8)
.99" (25.15)
1 3/8" (34.9)
SEE NOTES 2,3,4
(4) - HOLE FOR HORIZONTAL SUSPENSION
1 1/8" (28.6)
35 5/8" (904.9)
3" (76.2)
34 9/16" (877.9)
48 1/16" (1220.8)
10 7/16" (265.1)
SUPPLY OPENING
SIDE RETURN
BOTTOM RETURN
SUPPLY VERTICAL - RETURN HORIZONTAL / RETURN VERTICAL
(4) - HOLE FOR HORIZONTAL SUSPENSION
BOTTOM RETURN
FILTER
SIDE RETURN
SUPPLY HORIZONTAL - RETURN VERTICAL / RETURN HORIZONTAL

Figure 14. 6.25 ton air handler, single circuit

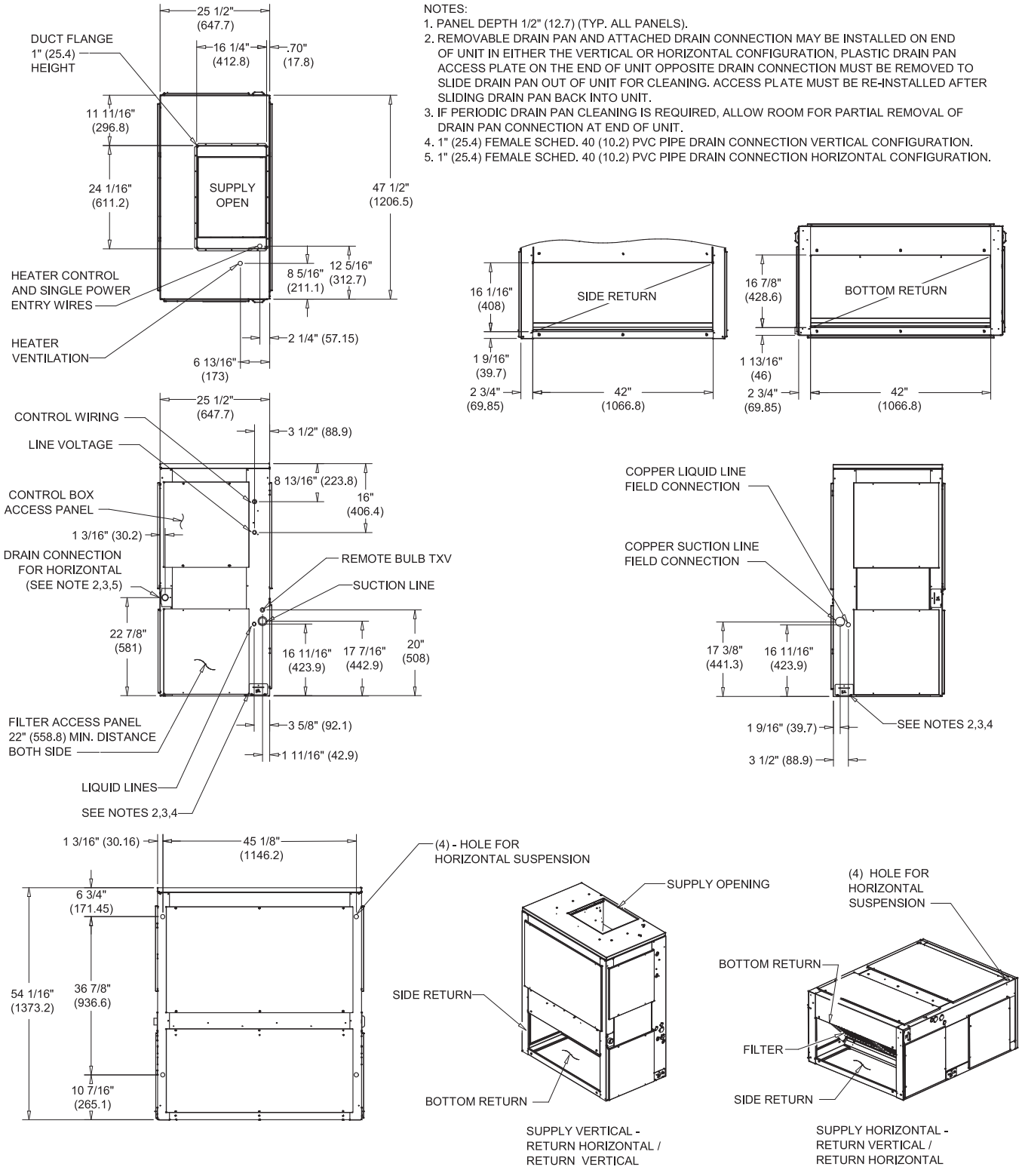

NOTES:
1. PANEL DEPTH 1/2" (12.7) (TYP. ALL PANELS).
2. REMOVABLE DRAIN PAN AND ATTACHED DRAIN CONNECTION MAY BE INSTALLED ON END OF UNIT IN EITHER THE VERTICAL OR HORIZONTAL CONFIGURATION, PLASTIC DRAIN PAN ACCESS PLATE ON THE END OF UNIT OPPOSITE DRAIN CONNECTION MUST BE REMOVED TO SLIDE DRAIN PAN OUT OF UNIT FOR CLEANING. ACCESS PLATE MUST BE RE-INSTALLED AFTER SLIDING DRAIN PAN BACK INTO UNIT.
3. IF PERIODIC DRAIN PAN CLEANING IS REQUIRED, ALLOW ROOM FOR PARTIAL REMOVAL OF DRAIN PAN CONNECTION AT END OF UNIT.
4. 1" (25.4) FEMALE SCHED. 40 (10.2) PVC PIPE DRAIN CONNECTION VERTICAL CONFIGURATION.
5. 1" (25.4) FEMALE SCHED. 40 (10.2) PVC PIPE DRAIN CONNECTION HORIZONTAL CONFIGURATION.
25 1/2" (647.7)
DUCT FLANGE 1" (25.4) HEIGHT
16 1/4" (412.8)
.70" (17.8)
11 11/16" (296.8)
24 1/16" (611.2)
SUPPLY OPEN
47 1/2" (1206.5)
HEATER CONTROL AND SINGLE POWER ENTRY WIRES
8 5/16" (211.1)
12 5/16" (312.7)
HEATER VENTILATION
2 1/4" (57.15)
6 13/16" (173)
16 1/16" (408)
SIDE RETURN
1 9/16" (39.7)
2 3/4" (69.85)
42" (1066.8)
16 7/8" (428.6)
BOTTOM RETURN
1 13/16" (46)
2 3/4" (69.85)
42" (1066.8)
CONTROL WIRING
LINE VOLTAGE
3 1/2" (88.9)
8 13/16" (223.8)
16" (406.4)
CONTROL BOX ACCESS PANEL
1 3/16" (30.2)
DRAIN CONNECTION FOR HORIZONTAL (SEE NOTE 2,3,5)
REMOTE BULB TXV
SUCTION LINE
22 7/8" (581)
16 11/16" (423.9)
17 7/16" (442.9)
20" (508)
FILTER ACCESS PANEL 22" (558.8) MIN. DISTANCE BOTH SIDE
3 5/8" (92.1)
1 11/16" (42.9)
LIQUID LINES
SEE NOTES 2,3,4
COPPER LIQUID LINE FIELD CONNECTION
COPPER SUCTION LINE FIELD CONNECTION
17 3/8" (441.3)
16 11/16" (423.9)
1 9/16" (39.7)
SEE NOTES 2,3,4
3 1/2" (88.9)
1 3/16" (30.16)
45 1/8" (1146.2)
(4) - HOLE FOR HORIZONTAL SUSPENSION
6 3/4" (171.45)
54 1/16" (1373.2)
36 7/8" (936.6)
10 7/16" (265.1)
SUPPLY OPENING
SIDE RETURN
BOTTOM RETURN
SUPPLY VERTICAL - RETURN HORIZONTAL / RETURN VERTICAL
(4) HOLE FOR HORIZONTAL SUSPENSION
BOTTOM RETURN
FILTER
SIDE RETURN
SUPPLY HORIZONTAL - RETURN VERTICAL / RETURN HORIZONTAL

Figure 15. 8.33 ton air handler, single circuit

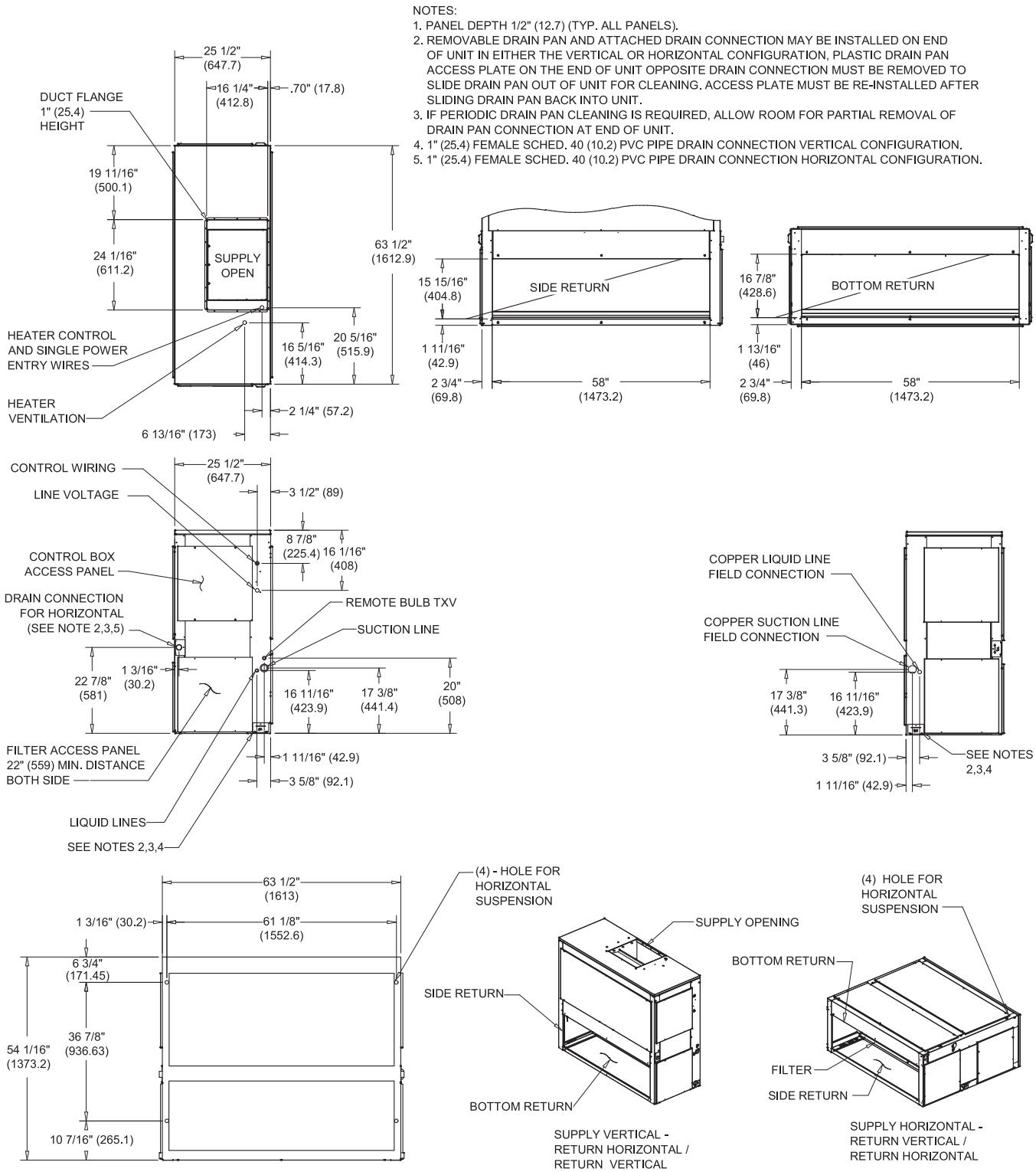

NOTES:
1. PANEL DEPTH 1/2" (12.7) (TYP. ALL PANELS).
2. REMOVABLE DRAIN PAN AND ATTACHED DRAIN CONNECTION MAY BE INSTALLED ON END OF UNIT IN EITHER THE VERTICAL OR HORIZONTAL CONFIGURATION, PLASTIC DRAIN PAN ACCESS PLATE ON THE END OF UNIT OPPOSITE DRAIN CONNECTION MUST BE REMOVED TO SLIDE DRAIN PAN OUT OF UNIT FOR CLEANING. ACCESS PLATE MUST BE RE-INSTALLED AFTER SLIDING DRAIN PAN BACK INTO UNIT.
3. IF PERIODIC DRAIN PAN CLEANING IS REQUIRED, ALLOW ROOM FOR PARTIAL REMOVAL OF DRAIN PAN CONNECTION AT END OF UNIT.
4. 1" (25.4) FEMALE SCHED. 40 (10.2) PVC PIPE DRAIN CONNECTION VERTICAL CONFIGURATION.
5. 1" (25.4) FEMALE SCHED. 40 (10.2) PVC PIPE DRAIN CONNECTION HORIZONTAL CONFIGURATION.
25 1/2" (647.7)
16 1/4" (412.8)
.70" (17.8)
DUCT FLANGE 1" (25.4) HEIGHT
19 11/16" (500.1)
24 1/16" (611.2)
SUPPLY OPEN
63 1/2" (1612.9)
HEATER CONTROL AND SINGLE POWER ENTRY WIRES
16 5/16" (414.3)
20 5/16" (515.9)
HEATER VENTILATION
2 1/4" (57.2)
6 13/16" (173)
15 15/16" (404.8)
SIDE RETURN
1 11/16" (42.9)
2 3/4" (69.8)
58" (1473.2)
16 7/8" (428.6)
BOTTOM RETURN
1 13/16" (46)
2 3/4" (69.8)
58" (1473.2)
CONTROL WIRING
LINE VOLTAGE
25 1/2" (647.7)
3 1/2" (89)
8 7/8" (225.4)
16 1/16" (408)
CONTROL BOX ACCESS PANEL
DRAIN CONNECTION FOR HORIZONTAL (SEE NOTE 2,3,5)
REMOTE BULB TXV
SUCTION LINE
22 7/8" (581)
1 3/16" (30.2)
16 11/16" (423.9)
17 3/8" (441.4)
20" (508)
FILTER ACCESS PANEL 22" (559) MIN. DISTANCE BOTH SIDE
1 11/16" (42.9)
3 5/8" (92.1)
LIQUID LINES
SEE NOTES 2,3,4
COPPER LIQUID LINE FIELD CONNECTION
COPPER SUCTION LINE FIELD CONNECTION
17 3/8" (441.3)
16 11/16" (423.9)
3 5/8" (92.1)
1 11/16" (42.9)
SEE NOTES 2,3,4
63 1/2" (1613)
1 3/16" (30.2)
61 1/8" (1552.6)
6 3/4" (171.45)
54 1/16" (1373.2)
36 7/8" (936.63)
10 7/16" (265.1)
(4) - HOLE FOR HORIZONTAL SUSPENSION
SUPPLY OPENING
SIDE RETURN
BOTTOM RETURN
SUPPLY VERTICAL - RETURN HORIZONTAL / RETURN VERTICAL
(4) HOLE FOR HORIZONTAL SUSPENSION
BOTTOM RETURN
FILTER
SIDE RETURN
SUPPLY HORIZONTAL - RETURN VERTICAL / RETURN HORIZONTAL

Figure 16. 8.33 ton air handler, dual circuit

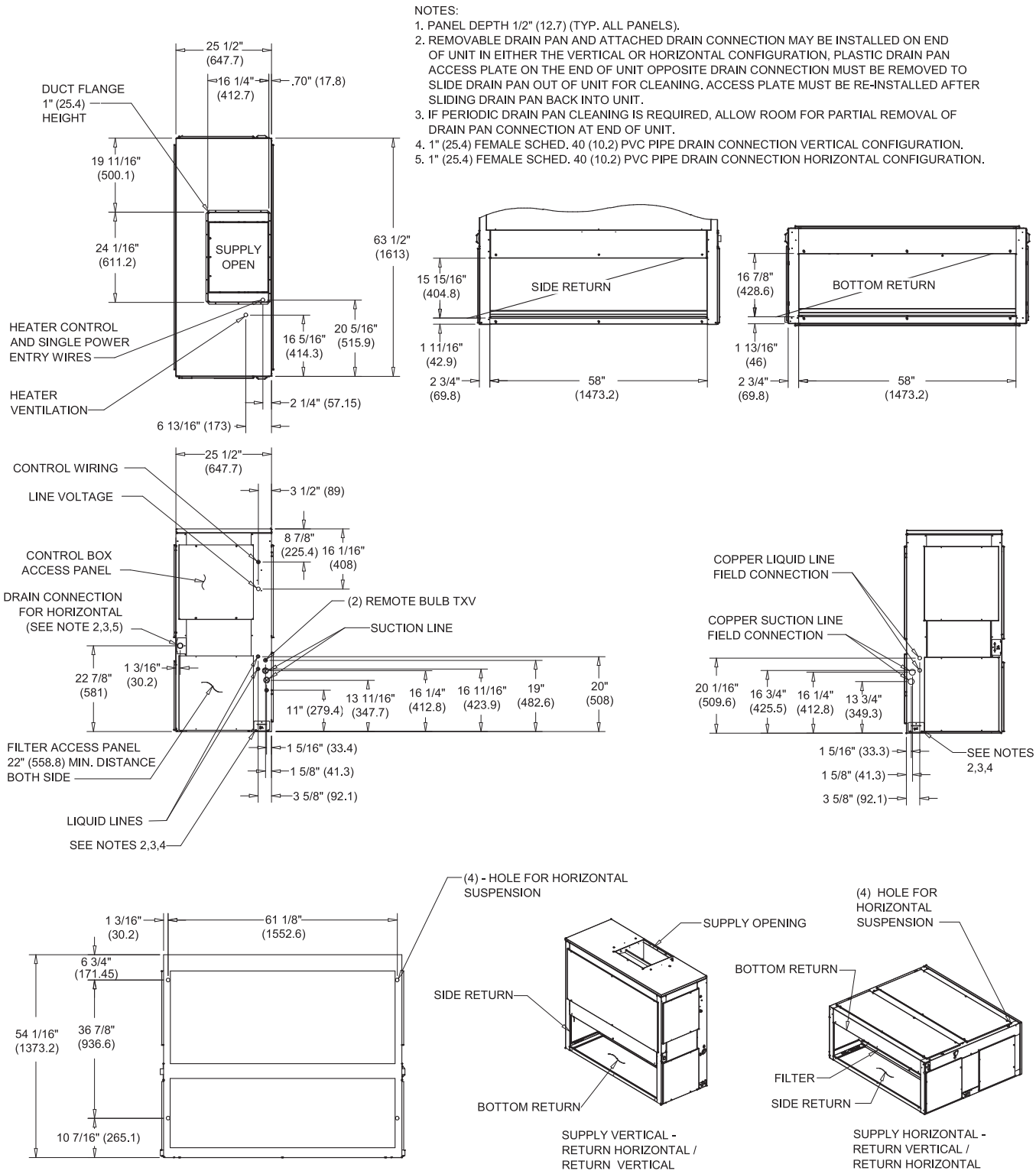

NOTES:
1. PANEL DEPTH 1/2" (12.7) (TYP. ALL PANELS).
2. REMOVABLE DRAIN PAN AND ATTACHED DRAIN CONNECTION MAY BE INSTALLED ON END OF UNIT IN EITHER THE VERTICAL OR HORIZONTAL CONFIGURATION, PLASTIC DRAIN PAN ACCESS PLATE ON THE END OF UNIT OPPOSITE DRAIN CONNECTION MUST BE REMOVED TO SLIDE DRAIN PAN OUT OF UNIT FOR CLEANING. ACCESS PLATE MUST BE RE-INSTALLED AFTER SLIDING DRAIN PAN BACK INTO UNIT.
3. IF PERIODIC DRAIN PAN CLEANING IS REQUIRED, ALLOW ROOM FOR PARTIAL REMOVAL OF DRAIN PAN CONNECTION AT END OF UNIT.
4. 1" (25.4) FEMALE SCHED. 40 (10.2) PVC PIPE DRAIN CONNECTION VERTICAL CONFIGURATION.
5. 1" (25.4) FEMALE SCHED. 40 (10.2) PVC PIPE DRAIN CONNECTION HORIZONTAL CONFIGURATION.
25 1/2" (647.7)
16 1/4" (412.7)
.70" (17.8)
DUCT FLANGE 1" (25.4) HEIGHT
19 11/16" (500.1)
24 1/16" (611.2)
SUPPLY OPEN
63 1/2" (1613)
HEATER CONTROL AND SINGLE POWER ENTRY WIRES
HEATER VENTILATION
16 5/16" (414.3)
20 5/16" (515.9)
2 1/4" (57.15)
6 13/16" (173)
15 15/16" (404.8)
SIDE RETURN
1 11/16" (42.9)
2 3/4" (69.8)
58" (1473.2)
16 7/8" (428.6)
BOTTOM RETURN
1 13/16" (46)
2 3/4" (69.8)
58" (1473.2)
CONTROL WIRING
LINE VOLTAGE
25 1/2" (647.7)
3 1/2" (89)
8 7/8" (225.4)
16 1/16" (408)
CONTROL BOX ACCESS PANEL
DRAIN CONNECTION FOR HORIZONTAL (SEE NOTE 2,3,5)
(2) REMOTE BULB TXV
SUCTION LINE
22 7/8" (581)
1 3/16" (30.2)
11" (279.4)
13 11/16" (347.7)
16 1/4" (412.8)
16 11/16" (423.9)
19" (482.6)
20" (508)
FILTER ACCESS PANEL 22" (558.8) MIN. DISTANCE BOTH SIDE
1 5/16" (33.4)
1 5/8" (41.3)
3 5/8" (92.1)
LIQUID LINES
SEE NOTES 2,3,4
COPPER LIQUID LINE FIELD CONNECTION
COPPER SUCTION LINE FIELD CONNECTION
20 1/16" (509.6)
16 3/4" (425.5)
16 1/4" (412.8)
13 3/4" (349.3)
1 5/16" (33.3)
1 5/8" (41.3)
3 5/8" (92.1)
SEE NOTES 2,3,4
1 3/16" (30.2)
61 1/8" (1552.6)
6 3/4" (171.45)
54 1/16" (1373.2)
36 7/8" (936.6)
10 7/16" (265.1)
(4) - HOLE FOR HORIZONTAL SUSPENSION
SUPPLY OPENING
SIDE RETURN
BOTTOM RETURN
SUPPLY VERTICAL - RETURN HORIZONTAL / RETURN VERTICAL
(4) HOLE FOR HORIZONTAL SUSPENSION
BOTTOM RETURN
FILTER
SIDE RETURN
SUPPLY HORIZONTAL - RETURN VERTICAL / RETURN HORIZONTAL

Figure 17. 10.4, 13 ton air handler, dual circuit

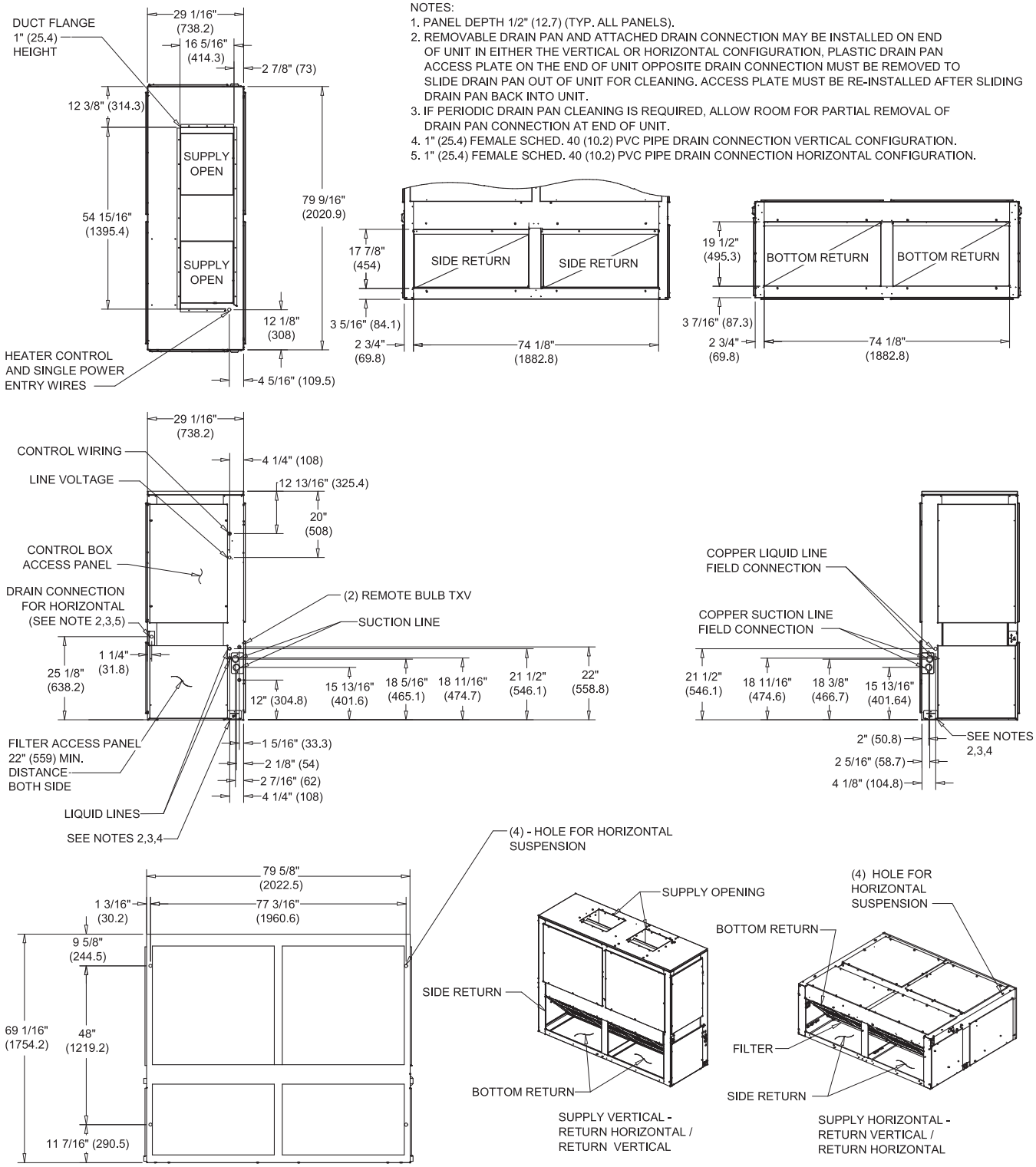
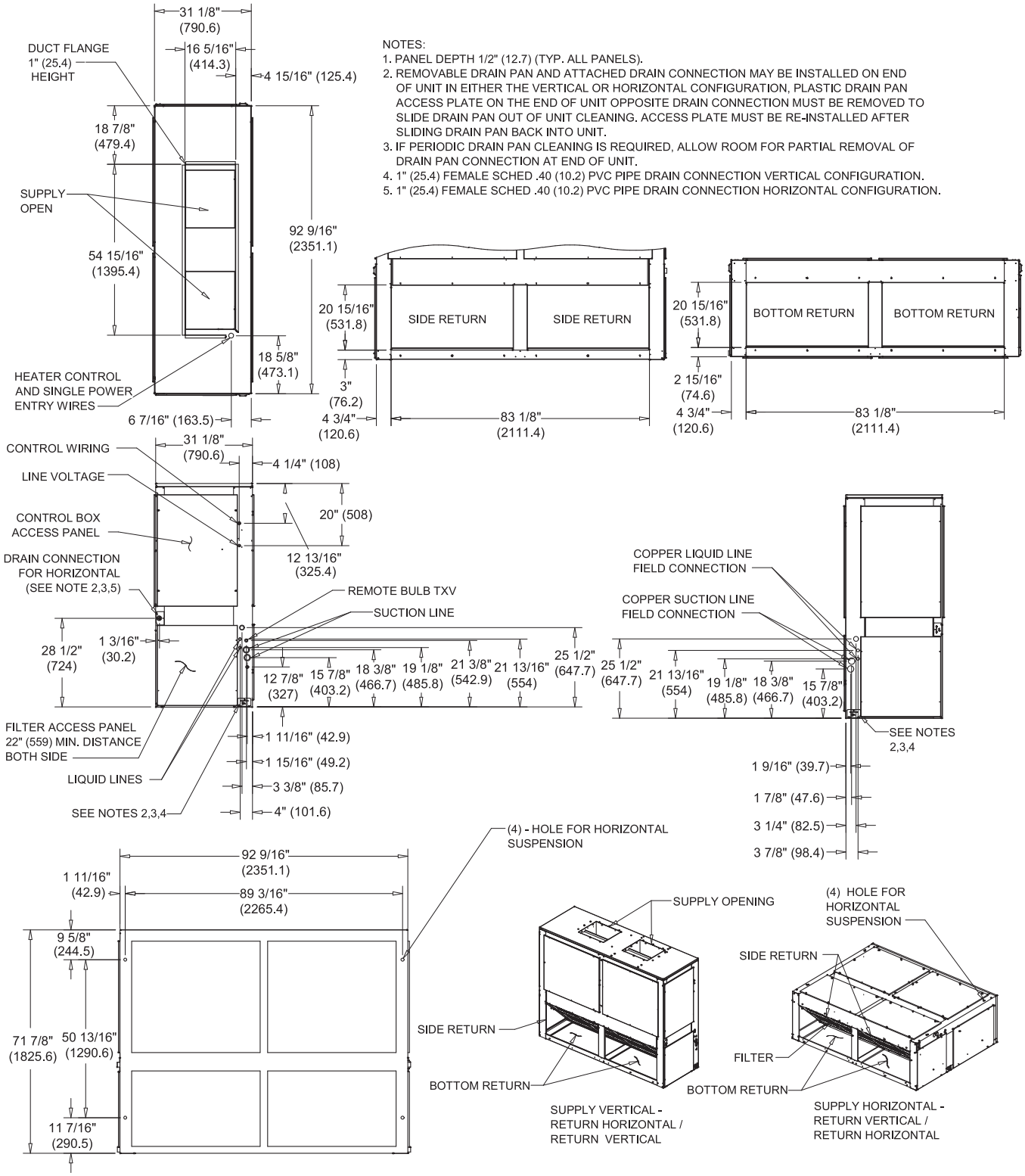

NOTES:
1. PANEL DEPTH 1/2" (12.7) (TYP. ALL PANELS).
2. REMOVABLE DRAIN PAN AND ATTACHED DRAIN CONNECTION MAY BE INSTALLED ON END OF UNIT IN EITHER THE VERTICAL OR HORIZONTAL CONFIGURATION, PLASTIC DRAIN PAN ACCESS PLATE ON THE END OF UNIT OPPOSITE DRAIN CONNECTION MUST BE REMOVED TO SLIDE DRAIN PAN OUT OF UNIT FOR CLEANING. ACCESS PLATE MUST BE RE-INSTALLED AFTER SLIDING DRAIN PAN BACK INTO UNIT.
3. IF PERIODIC DRAIN PAN CLEANING IS REQUIRED, ALLOW ROOM FOR PARTIAL REMOVAL OF DRAIN PAN CONNECTION AT END OF UNIT.
4. 1" (25.4) FEMALE SCHED. 40 (10.2) PVC PIPE DRAIN CONNECTION VERTICAL CONFIGURATION.
5. 1" (25.4) FEMALE SCHED. 40 (10.2) PVC PIPE DRAIN CONNECTION HORIZONTAL CONFIGURATION.
DUCT FLANGE 1" (25.4) HEIGHT
29 1/16" (738.2)
16 5/16" (414.3)
2 7/8" (73)
12 3/8" (314.3)
SUPPLY OPEN
SUPPLY OPEN
54 15/16" (1395.4)
79 9/16" (2020.9)
12 1/8" (308)
HEATER CONTROL AND SINGLE POWER ENTRY WIRES
4 5/16" (109.5)
17 7/8" (454)
SIDE RETURN
SIDE RETURN
3 5/16" (84.1)
2 3/4" (69.8)
74 1/8" (1882.8)
19 1/2" (495.3)
BOTTOM RETURN
BOTTOM RETURN
3 7/16" (87.3)
2 3/4" (69.8)
74 1/8" (1882.8)
29 1/16" (738.2)
CONTROL WIRING
LINE VOLTAGE
4 1/4" (108)
12 13/16" (325.4)
20" (508)
CONTROL BOX ACCESS PANEL
DRAIN CONNECTION FOR HORIZONTAL (SEE NOTE 2,3,5)
(2) REMOTE BULB TXV
SUCTION LINE
1 1/4" (31.8)
25 1/8" (638.2)
12" (304.8)
15 13/16" (401.6)
18 5/16" (465.1)
18 11/16" (474.7)
21 1/2" (546.1)
22" (558.8)
FILTER ACCESS PANEL 22" (559) MIN. DISTANCE BOTH SIDE
1 5/16" (33.3)
2 1/8" (54)
2 7/16" (62)
4 1/4" (108)
LIQUID LINES
SEE NOTES 2,3,4
COPPER LIQUID LINE FIELD CONNECTION
COPPER SUCTION LINE FIELD CONNECTION
21 1/2" (546.1)
18 11/16" (474.6)
18 3/8" (466.7)
15 13/16" (401.64)
2" (50.8)
2 5/16" (58.7)
4 1/8" (104.8)
SEE NOTES 2,3,4
(4) - HOLE FOR HORIZONTAL SUSPENSION
79 5/8" (2022.5)
1 3/16" (30.2)
77 3/16" (1960.6)
9 5/8" (244.5)
69 1/16" (1754.2)
48" (1219.2)
11 7/16" (290.5)
SUPPLY OPENING
SIDE RETURN
BOTTOM RETURN
SUPPLY VERTICAL - RETURN HORIZONTAL / RETURN VERTICAL
(4) HOLE FOR HORIZONTAL SUSPENSION
BOTTOM RETURN
FILTER
SIDE RETURN
SUPPLY HORIZONTAL - RETURN VERTICAL / RETURN HORIZONTAL

Figure 18. 16.7 ton air handler, dual circuit


31 1/8" (790.6)
DUCT FLANGE 1" (25.4) HEIGHT
16 5/16" (414.3)
4 15/16" (125.4)
18 7/8" (479.4)
SUPPLY OPEN
54 15/16" (1395.4)
92 9/16" (2351.1)
18 5/8" (473.1)
HEATER CONTROL AND SINGLE POWER ENTRY WIRES
6 7/16" (163.5)
NOTES:
1. PANEL DEPTH 1/2" (12.7) (TYP. ALL PANELS).
2. REMOVABLE DRAIN PAN AND ATTACHED DRAIN CONNECTION MAY BE INSTALLED ON END OF UNIT IN EITHER THE VERTICAL OR HORIZONTAL CONFIGURATION, PLASTIC DRAIN PAN ACCESS PLATE ON THE END OF UNIT OPPOSITE DRAIN CONNECTION MUST BE REMOVED TO SLIDE DRAIN PAN OUT OF UNIT CLEANING. ACCESS PLATE MUST BE RE-INSTALLED AFTER SLIDING DRAIN PAN BACK INTO UNIT.
3. IF PERIODIC DRAIN PAN CLEANING IS REQUIRED, ALLOW ROOM FOR PARTIAL REMOVAL OF DRAIN PAN CONNECTION AT END OF UNIT.
4. 1" (25.4) FEMALE SCHED .40 (10.2) PVC PIPE DRAIN CONNECTION VERTICAL CONFIGURATION.
5. 1" (25.4) FEMALE SCHED .40 (10.2) PVC PIPE DRAIN CONNECTION HORIZONTAL CONFIGURATION.
20 15/16" (531.8)
SIDE RETURN
SIDE RETURN
3" (76.2)
4 3/4" (120.6)
83 1/8" (2111.4)
20 15/16" (531.8)
BOTTOM RETURN
BOTTOM RETURN
2 15/16" (74.6)
4 3/4" (120.6)
83 1/8" (2111.4)
CONTROL WIRING
LINE VOLTAGE
CONTROL BOX ACCESS PANEL
DRAIN CONNECTION FOR HORIZONTAL (SEE NOTE 2,3,5)
31 1/8" (790.6)
4 1/4" (108)
20" (508)
12 13/16" (325.4)
REMOTE BULB TXV
SUCTION LINE
28 1/2" (724)
1 3/16" (30.2)
12 7/8" (327)
15 7/8" (403.2)
18 3/8" (466.7)
19 1/8" (485.8)
21 3/8" (542.9)
21 13/16" (554)
25 1/2" (647.7)
FILTER ACCESS PANEL 22" (559) MIN. DISTANCE BOTH SIDE
LIQUID LINES
SEE NOTES 2,3,4
1 11/16" (42.9)
1 15/16" (49.2)
3 3/8" (85.7)
4" (101.6)
COPPER LIQUID LINE FIELD CONNECTION
COPPER SUCTION LINE FIELD CONNECTION
25 1/2" (647.7)
21 13/16" (554)
19 1/8" (485.8)
18 3/8" (466.7)
15 7/8" (403.2)
SEE NOTES 2,3,4
1 9/16" (39.7)
1 7/8" (47.6)
3 1/4" (82.5)
3 7/8" (98.4)
92 9/16" (2351.1)
1 11/16" (42.9)
89 3/16" (2265.4)
9 5/8" (244.5)
71 7/8" (1825.6)
50 13/16" (1290.6)
11 7/16" (290.5)
(4) - HOLE FOR HORIZONTAL SUSPENSION
SUPPLY OPENING
SIDE RETURN
BOTTOM RETURN
SUPPLY VERTICAL - RETURN HORIZONTAL / RETURN VERTICAL
(4) HOLE FOR HORIZONTAL SUSPENSION
SIDE RETURN
FILTER
BOTTOM RETURN
SUPPLY HORIZONTAL - RETURN VERTICAL / RETURN HORIZONTAL

Accessories

Figure 19. Rubber isolator accessory dimensions

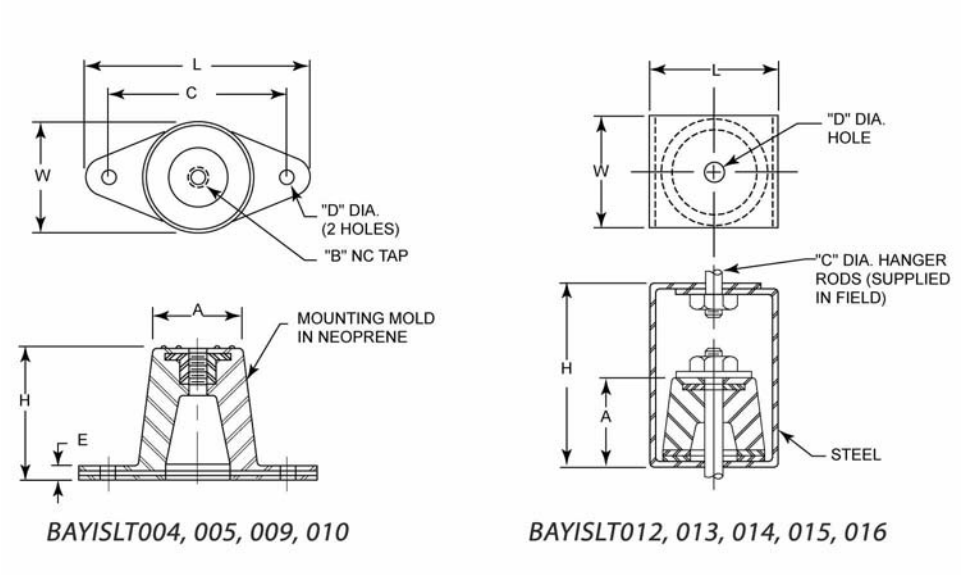


Table 78. Rubber isolator accessory dimensions

Model No.	L	W	H	A	B	C	D	E
BAYISLT004	3-1/8 (79.375)	1-3/4 (44.45)	1-1/4 (31.75)	1-1/4 (31.75)	3/8 (9.525)	2-3/8 (60.325)	3/8 (9.525)	1/4 (6.35)
BAYISLT005	3-7/8 (98.425)	2-3/8 (60.325)	1-3/4 (44.45)	1-3/4 (44.45)	3/8 (9.525)	3 (76.2)	3/8 (9.525)	1/4 (6.35)
BAYISLT009	3-7/8 (98.425)	2-3/8 (60.325)	1-3/4 (44.45)	1-3/4 (44.45)	3/8 (9.525)	3 (76.2)	3/8 (9.525)	1/4 (6.35)
BAYISLT010	3-7/8 (98.425)	2-3/8 (60.325)	1-3/4 (44.45)	1-3/4 (44.45)	3/8 (9.525)	3 (76.2)	3/8 (9.525)	1/4 (6.35)
BAYISLT013	2-1/4 (57.15)	2 (50.8)	3 (76.2)	1-3/8 (34.925)	3/4 (19.05)	3/8 (9.525)	1/2 (12.7)	—
BAYISLT014	2-1/4 (57.15)	2 (50.8)	3 (76.2)	1-3/8 (34.925)	3/4 (19.05)	3/8 (9.525)	1/2 (12.7)	—
BAYISLT015	2-1/4 (57.15)	2 (50.8)	3 (76.2)	1-3/8 (34.925)	3/4 (19.05)	3/8 (9.525)	1/2 (12.7)	—
BAYISLT012	3 (76.2)	2-1/4 (57.15)	4-1/2 (114.3)	1-7/8 (47.625)	1/4 (6.35)	5/8 (15.875)	3/4 (19.05)	—
BAYISLT015 (a)	3 (76.2)	2-1/4 (57.15)	4-1/2 (114.3)	1-7/8 (47.625)	1/4 (6.35)	5/8 (15.875)	3/4 (19.05)	—
BAYISLT016	3 (76.2)	2-1/4 (57.15)	4-1/2 (114.3)	1-7/8 (47.625)	1/4 (6.35)	5/8 (15.875)	3/4 (19.05)	—

Note: BAYISLT015 contains a quantity 2 of the 2-1/4 x 2 x 3 isolators and quantity of 3 of the 3 x 2-1/4 x 4-1/2 isolators.

Figure 20. Spring isolator accessory dimensions – inches (millimeters)

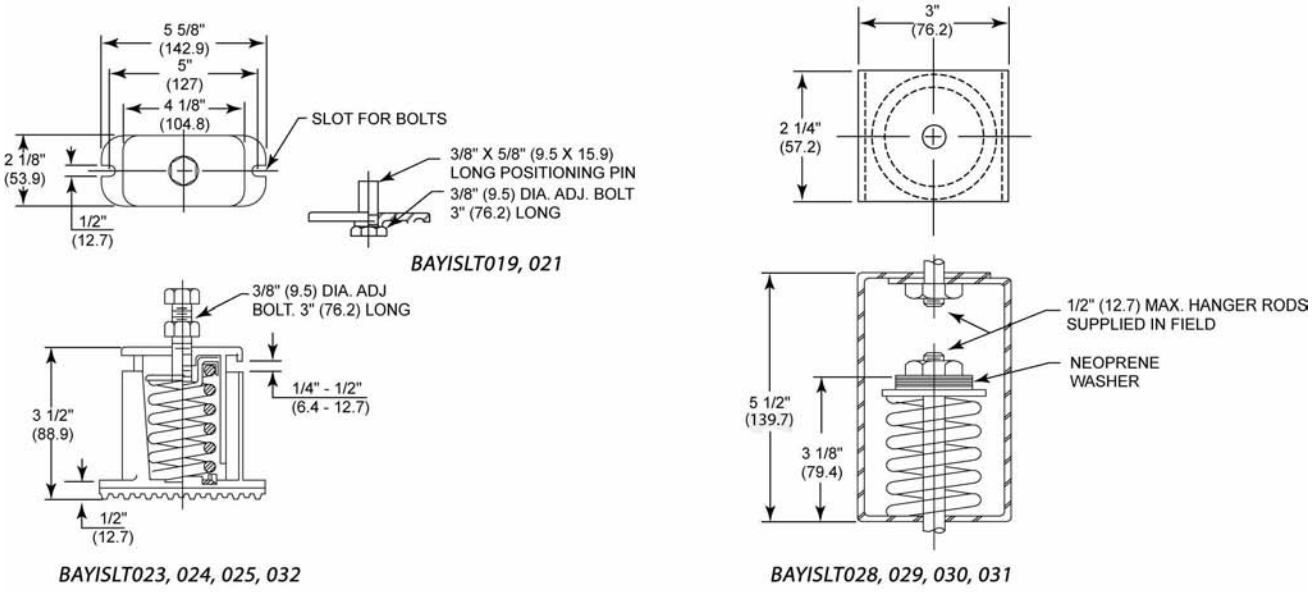


Figure 21. Electric heater accessory for 4.6-8.3 ton air handlers – inches (millimeters)

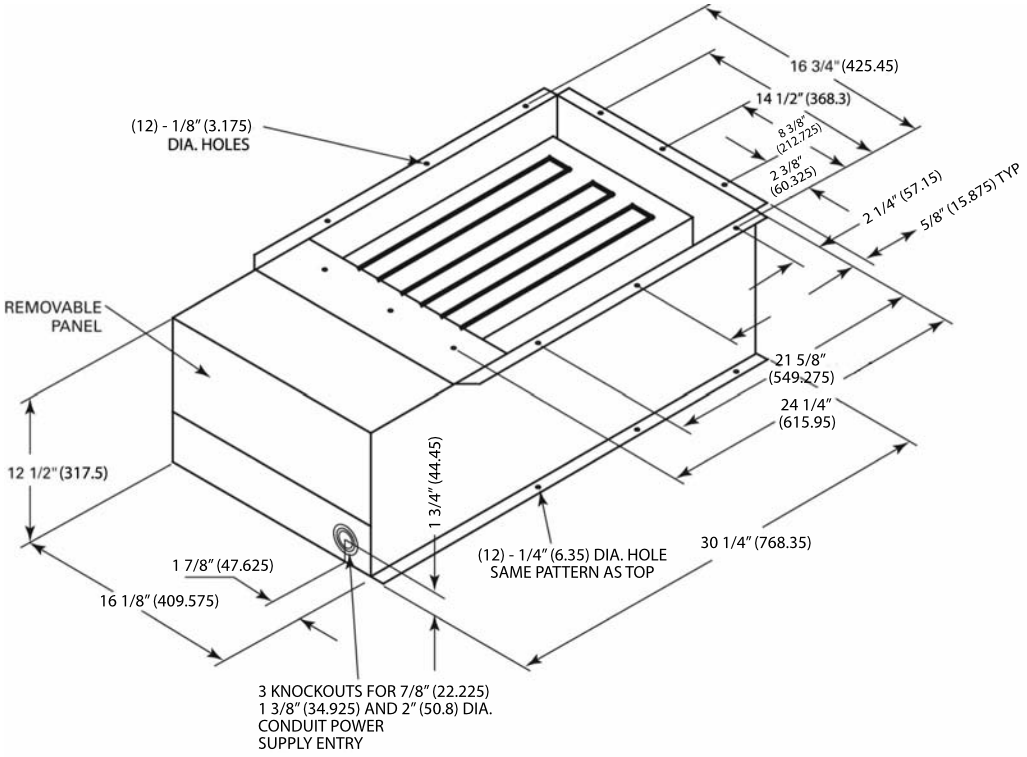


Figure 22. Electric heater accessory for 8.3-16.7 ton air handlers – inches (millimeters)

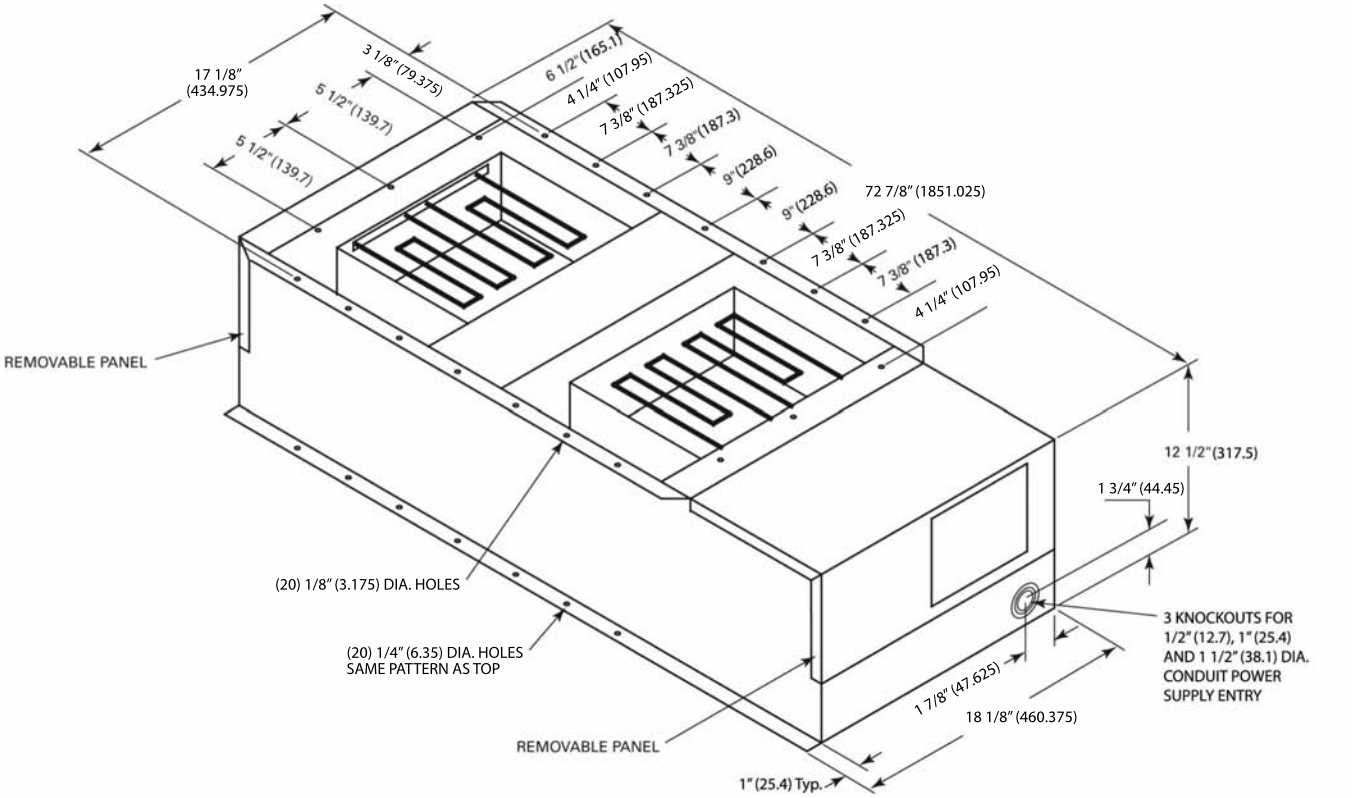


Figure 23. Discharge plenum and grille accessory

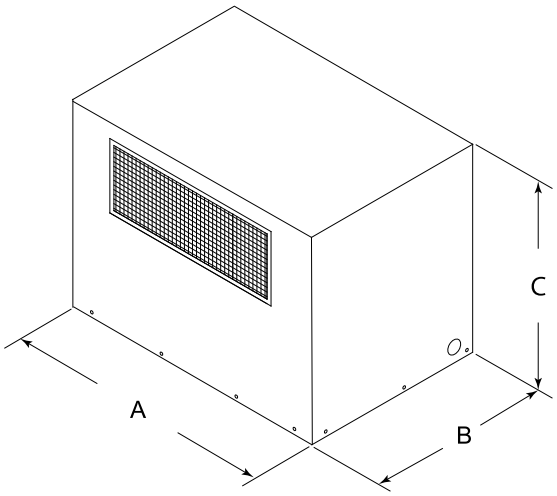


Table 79. Discharge plenum and grille dimensions – no heat – inches (millimeters)

Unit	Model No.[a]	A	B	C
TWE051	BAYPLNM015	37.94 (963.6)	21.94 (557.2)	28 (711.2)
TWE076	BAYPLNM016	47.5 (1206.5)	24.99 (634.7)	28 (711.2)
TWE101	BAYPLNM017	63.5 (1612.9)	24.99 (634.7)	28 (711.2)
TWE126, TWE156	BAYPLNM018[b]	79.5 (2019.3)	27.63 (701.8)	22 (558.8)
TWE201	BAYPLNM019[b]	92.5 (2349.5)	30.43 (772.9)	24 (609.6)

[a] When installed horizontally, plenum/water coil must be self-supported.
[b] For use with hydronic heat or no heat.

Figure 24. Discharge plenum and grille accessory

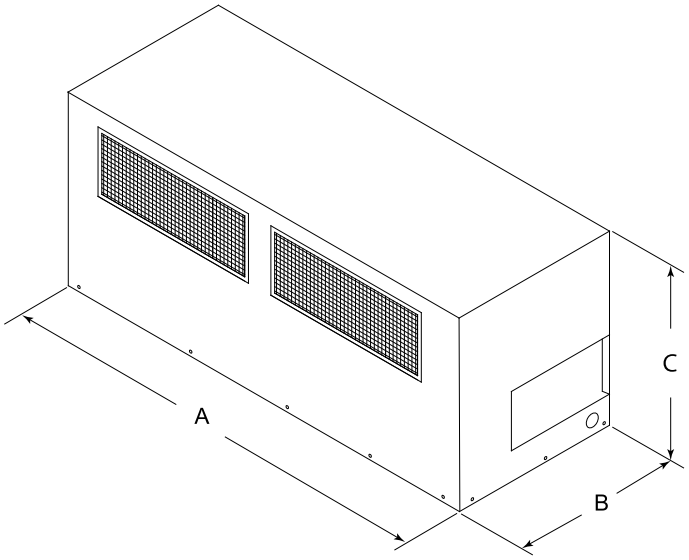


Table 80. Discharge plenum and grille dimensions – inches (millimeters) – (for use with electric heat)

Tons	Model No.	A	B	C
TWE051	BAYPLNM030	38.07 (967)	22.69 (576.3)	29.05 (738)
TWE076	BAYPLNM031	47.86 (1216)	25.69 (652.5)	29.05 (738)
TWE101	BAYPLNM032	63.86 (1622)	25.69 (652.5)	29.05 (738)
TWE126, TWE156	BAYPLNM033	80.14 (2036)	29.10 (739.1)	35.11 (892)
TWE201	BAYPLNM034	92.96 (2361)	31.10 (789.9)	35.05 (890)

Figure 25. Subbase accessory – inches (millimeters)

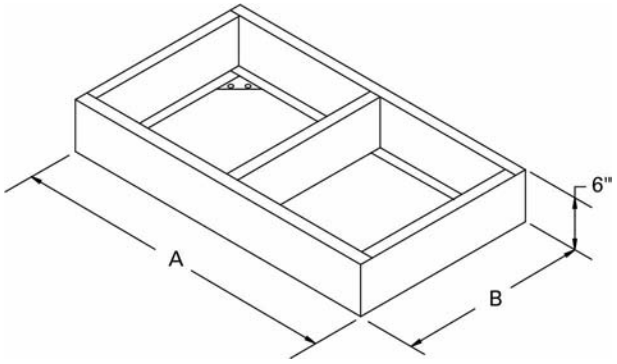


Table 81. Subbase dimensions – inches (millimeters)

Tons	Model No.	A	B
TWE051	BAYBASE009	38 (965.2)	22.63 (574.8)
TWE076	BAYBASE010	47.5 (1206.5)	25.51 (648.0)
TWE101	BAYBASE011	63.5 (1612.9)	25.52 (648.2)
TWE126, TWE156	BAYBASE012	79.5 (2019.3)	29.04 (737.6)
TWE201	BAYBASE013	92.5 (2349.5)	31.14 (791.0)

Weights

Heat Pump Condenser

Table 82. TWA unit and corner weights — lbs (50 Hz)

Tons	Model No.	Shipping Max (lbs)	Net Max (lbs)	Corner Weights			
				1	2	3	4
5	TWA061D	172	148	51	37	25	34
6.25	TWA076D	177	153	53	39	26	36
8.33	TWA101D	229	197	57	54	32	53
13	TWA156E	404	344	91	86	81	86
16.7	TWA201E	441	382	114	120	66	81

Figure 26. TWA061, 076, 101

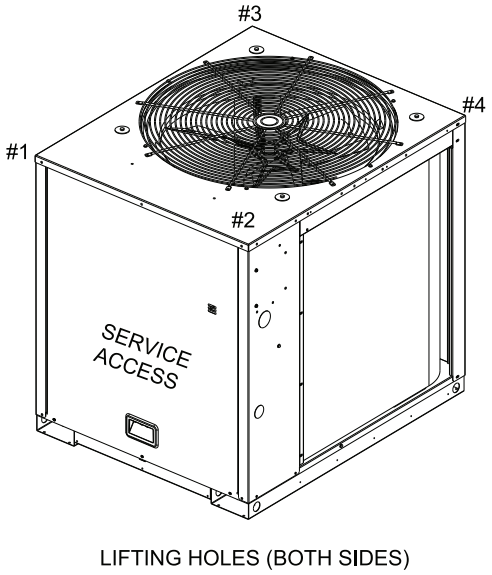
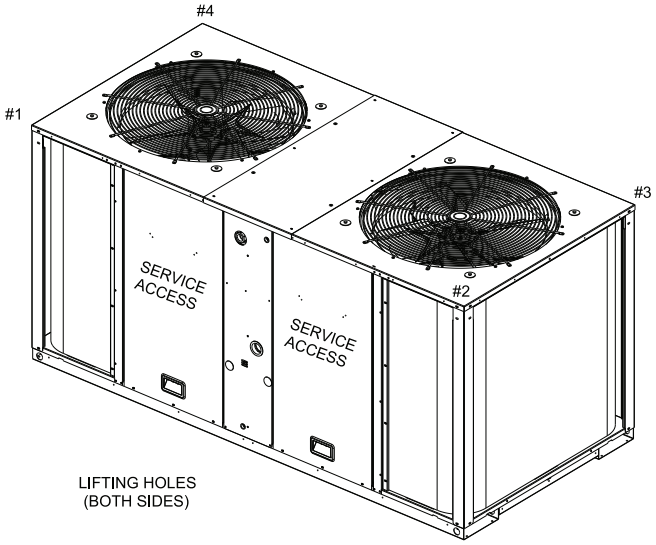


Figure 27. TWA156, 201



Air Handler

Table 83. SZVAV and 2-Speed VFD air handler (TWE) — unit and corner weights - (60 Hz)

Tons	Model Number	Shipping Max (lbs)	Net Max (lbs)	Corner Weights - Vertical				Corner Weights - Horizontal			
				1	2	3	4	1	2	3	4
10	TWE120D/E	429	393	77	121	110	85	79	118	77	119
12.5	TWE150E	730	676	168	192	181	135	196	164	145	171
15	TWE180E	729	675	167	192	181	135	196	163	145	171
20	TWE240E	891	818	258	168	161	231	256	181	146	235

Table 84. Standard air handler (TWE) — unit and corner weights - (50 Hz)

Tons	Model Number	Shipping Max (lbs)	Net Max (lbs)	Corner Weights - Vertical				Corner Weights - Horizontal			
				1	2	3	4	1	2	3	4
5	TWE061D/E	263	232	55	71	51	55	54	67	50	61
7.5	TWE090D/E	360	323	67	99	75	82	56	92	87	88
10	TWE120D/E	429	393	77	121	110	85	79	118	77	119
12.5	TWE150E	730	676	168	192	181	135	196	164	145	171

Table 84. Standard air handler (TWE) — unit and corner weights - (50 Hz) (continued)

15	TWE180E	729	675	167	192	181	135	196	163	145	171
20	TWE240E	891	818	258	168	161	231	256	181	146	235

Figure 28. Vertical — TWE051, 076, 101

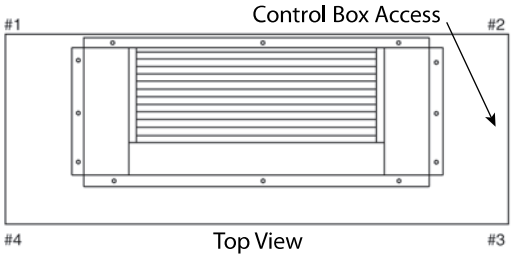


Figure 29. Vertical — TWE126, 156, 201

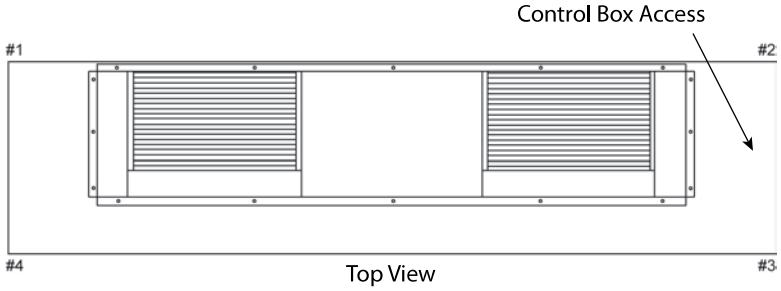


Figure 30. Horizontal — TWE051, 076, 101

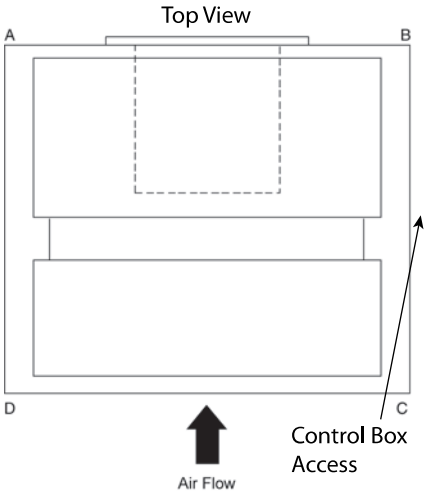
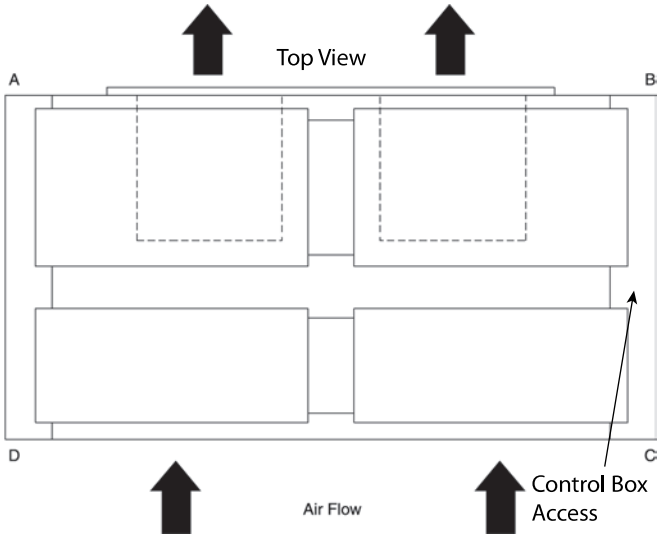


Figure 31. Horizontal — TWE126, 156, 201



Mechanical Specifications

Condensing Units

Standard Options

General

- Weatherproofed steel mounting/lifting rails
- Hermetic scroll compressors
- Plate fin condenser coils
- Fans and motors
- Standard operating range 50-125°F (min. 0°F with low ambient accessory)
- Nitrogen holding charge

Casing

- Zinc coated, heavy gauge, galvanized steel
- Weather resistant baked enamel finish
- Meets ASTM B117, 672 hour salt spray test
- Removable single side maintenance access panels
- Lifting handles in maintenance access panels
- Unit base provisions for forklift and/or crane lifting

Refrigeration System - Single Compressor (TWA051D, TWA076D, TWA101D)

- Single refrigeration circuit with integral subcooling circuit
- Single direct drive hermetic scroll compressor
- Suction gas-cooled motor w/ ± 10% voltage utilization range of unit nameplate voltage
- Reversing valve
- Crankcase heater
- Internal temperature and current sensitive motor overloads
- No compressor suction and/or discharge valves (reduced vibration/sound)
- Factory installed liquid line filter drier
- Phase loss/reverse rotation monitor
- Liquid line service valve (with gauge port)
- Suction line service valve (with gauge port)
- External high pressure cutout device
- External low pressure cutout device
- Evaporator defrost control
- Loss of charge protection (discharge temperature limit)

Refrigeration System - Dual Compressor (TWA156E, TWA201E)

- Two (2) separate and independent refrigerant circuits
- Each refrigeration circuit equipped with integral subcooling circuit
- Two (2) direct drive hermetic scroll compressor
- Suction gas-cooled motors w/ ± 10% voltage utilization range of unit nameplate voltage
- Reversing valves
- Crankcase Heaters
- Internal temperature and current sensitive motor overloads
- Factory installed liquid line filter driers
- Phase loss/reverse rotation monitor
- Liquid line service valves (with gauge port)
- Suction line service valves (with gauge port)
- No compressor suction and/or discharge valves (reduced vibration/sound)
- External high pressure cutout devices
- External low pressure cutout devices
- Evaporator defrost control

- Loss of charge protection (discharge temperature limit)

Condenser Coil

- 3/8" internally enhanced copper tube
- Mechanically bonded to lanced aluminum plate fins
- Factory pressure and leak tested to 660 psig
- Perforated steel hail guards available (factory installed option or field installed accessory)

Condenser Fan

- 26" or 28" propeller fan(s)
- Direct drive
- Statically and dynamically balanced

Condenser Motor(s)

- Permanently lubricated totally enclosed or open construction
- Built-in current and thermal overloads
- Ball or sleeve bearing type

Controls

- Centralized microprocessor
- Indoor and outdoor temperature sensors drive algorithms, making decisions for all heating, cooling, and ventilation
- Integrated anti-short cycle timer
- Integrated time delay between compressors
- Completely internally wired
- Numbered and colored wires
- Contactor pressure lugs or terminal block
- Unit external mounting location for disconnect device
- Single point power entry

Factory Installed Options

Hail Guards

- Condenser coil protection from hail, vandals, etc.
- Perforated, painted galvanized steel
- Factory or field installed

Black Epoxy Coated Condenser Coil

- Thermoset vinyl coating
- Bonded to aluminum fin stock (prior to fin-stamping process)
- Economical protectant in mildly corrosive environments

LonTalk Communication Interface

- Factory or field installed
- Communications board
- Allows unit communication as a Tracer™ LCI-R device
- Allows unit communication with generic LonTalk® Network building automation controls

Controls: Microprocessor

- Centralized processor
- Indoor and outdoor temperature sensors drive algorithms, making decisions for all heating, cooling, and ventilation
- Integrated anti-short cycle timer
- Integrated time delay between compressors

Field Installed Options

Low Ambient (Fan ON/OFF)

- Provides unit cooling operation to outdoor ambient of 0°F
- Low cost solution
- Liquid line temperature controls condenser fan operation
- 1 kit per condenser fan required

Low Ambient (Modulating)

- Provides unit cooling operation to outdoor ambient of 0°F
- "Wave-chopper"
- Discharge line pressure controls condenser fan operation
- 1 kit per condenser fan required

Vibration Isolators

- Neoprene-in-shear or spring flex choice
- Reduce vibration transmission to building structures, equipment, and adjacent spaces
- Reduce noise transmission to building structures, equipment, and adjacent spaces

Zone Sensor

- Interfaces with microprocessor units
- Manual or automatic programmable
- System malfunction lights
- Remote sensor options
- Wireless option

Thermostat

- 1H/1C available
- 2H/1C available
- Manual or automatic changeover available
- Programmable and non-programmable solutions available

LonTalk Communication Interface

- Factory or field installed
- Communications board
- Allows unit communication as a Tracer™ LCI-R device
- Allows unit communication with generic LonTalk® Network building automation controls

BACnet Communication Interface

- Communicates directly with a generic open protocol BACnet MS/TP Network building automation system control

Air Handlers

Standard Options

General

- Completely factory assembled
- Convertible for horizontal or vertical configuration
- Convertible for cooling only or heat pump application
- Convertible for left or right external connections (refrigerant and/or electrical)
- Convertible for front or bottom air return
- Nitrogen holding charge

Casing

- Zinc coated, heavy gauge, galvanized steel
- Weather resistant baked enamel finish

- Access panels with captive screws
- Completely insulated with foil faced, cleanable, fire retardant, permanent, odorless glass fiber material
- Captured or sealed insulation edges
- Electrical connection bushings or plugs
- Refrigerant connection bushings or plugs
- Withstand elevated internal static pressure

Refrigeration System

- Single or dual circuit
- Distributor(s)
- Thermal expansion valves (TXVs)

Evaporator Coil

- 3/8" internally enhanced copper tube mechanically bonded to lanced aluminum plate fins
- Factory pressure and leak tested to 449 psig.
- Draw-through airflow
- Dual circuits are interlaced/intertwined
- Double sloped, removable, cleanable, composite drain pan
- Four drain pan positions

Indoor Fan

- Double inlet, double width, forward curved, centrifugal type fan
- Dual fans on 10.4 – 16.7 ton air handlers
- Adjustable belt drive
- Permanently lubricated bearings

Indoor Motor

- Adjustable motor sheaves (standard units)
- Thermal overload protection
- Permanently lubricated bearings
- Meet energy policy of 1992 (EPACT)
- Optional oversized motors for high static applications

Controls

- Completely internally wired
- Numbered and colored wires
- Magnetic indoor fan contactor
- Low voltage terminal strip
- Single point power entry
- Evaporator defrost control

Filters

- Access from side coil panels
- Filters slide on rack
- One inch (1"), throwaway filters on 4.6 - 8.3 ton units
- Filter rack convertible to two inch (2") capability on 4.6 - 8.33 ton units
- Two inch (2"), throwaway filters on 10.4 - 20.9 ton units

Field Installed Options

Electric Heaters

- Heavy duty nickel chromium elements
- Installs directly on fan discharge
- One or two stage control (dependent upon capacity)
- Single point power entry

- Terminal strip connections
- 460V Heaters
  - Internally wye connected
  - Automatic line break high limit controls
- 230V Heaters
  - Internally delta connected
  - Automatic reset of high limit controls through pilot duty with secondary backup fuse links

Hydronic Heat Coils

- One row steam
- Two row hot water
- Installs directly on fan discharge
- Heavy gauge sheet metal casing matches air handler
- Convertible for horizontal or vertical configurations

Discharge Plenums and Grilles

- Vertical, free discharge applications
- Heavy gauge sheet metal casing matches air handler
- Satin-finished, 4-way adjustable louver grilles

Return Air Grilles

- Vertical, free discharge applications
- Satin-finished, non-adjustable louver grilles
- Replaces front lower access panel

Mounting Sub-Base

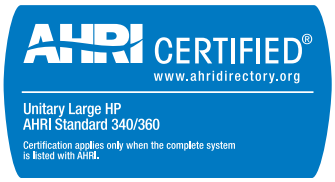
- Vertical floor mount configuration requirement
- Heavy gauge sheet metal casing matches air handler
- Provides additional clearance for condensate drain trapping
- Required when isolators are used

Vibration Isolators

- Neoprene-in-shear or spring flex choice
- Floor or suspended applications
- Reduce vibration transmission to building structures, equipment, and adjacent spaces
- Reduce noise transmission to building structures, equipment, and adjacent spaces

Oversize Motors

- High static applications
- Motor, sheaves, belt included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SSP-PRC024E-EN 19 May 2014
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